3M

MDS100

🖨 (EN) **Molecular Detection System User Manual**

3M

Molecular Detection System User Manual   MDS100

Table of Contents

Using this Manual

1. The 3M™ Molecular Detection System User Manual is provided in electronic format only. To access the user manual, click **[Help]** on the menu bar, and then select User Manual.
2. Click any item in the Table of Contents to immediately bring you to that section, or scroll or page through the User Manual to the desired section.
3. 3M Molecular Detection Software updates will include updates to this User Manual, which will automatically be installed along with the software updates.
4. This User Manual describes the operation and behavior of the 3M Molecular Detection System Software, and it is structured to provide step-by-step instructions for the operational tasks that users carry out. It is organized with the assumption that users prefer to search the Table of Contents for a specific task they want to carry out and follow step-by-step instructions for that task.
5. In the step-by-step instructions for using the software, the following style guidelines were used:
   a. *Italic type* is the name of a window
   b. **Bold type** is the exact text of something that appears on a window
   c. **[Bold type with brackets]** is the name of a button that you can click on a window

Intended Use

The 3M™ Molecular Detection Instrument is designed for use with 3M™ Molecular Detection Assays for the rapid detection of pathogens in enriched food and food process environmental samples, through the use of isothermal amplification and bioluminescence. Contact your official 3M Food Safety representative for a current listing of 3M Molecular Detection Assays documented for use with the Molecular Detection Instrument. 3M has not designed nor documented the 3M Molecular Detection Instrument for use with other manufacturer's molecular assays. The unit has been designed and tested to only be used with the Power Supply module designated and supplied by 3M Company. 3M anticipates that the 3M Molecular Detection Instrument will be utilized by technicians that have been properly trained in the use of the 3M Molecular Detection Instrument and 3M Molecular Detection Assays. The 3M Molecular Detection Instrument is intended for use with samples that have undergone heat treatment during the assay lysis step, which is designed to destroy organisms present in the sample. **Samples that have not been properly heat treated during the assay lysis step may be considered a potential biohazard and should NOT be inserted into the 3M Molecular Detection Instrument.**

User Responsibility

USER RESPONSIBILITY

Users are responsible for familiarizing themselves with product instructions and information. Visit our website at www.3M.com/foodsafety, or contact your local 3M representative or distributor for more information.

When selecting a test method, it is important to recognize that external factors such as sampling methods, testing protocols, sample preparation, handling, and laboratory technique may influence results.

It is the user's responsibility in selecting any test method or product to evaluate a sufficient number of samples with the appropriate matrices and microbial challenges to satisfy the user that the chosen test method meets the user's criteria.

It is also the user's responsibility to determine that any test methods and results meet its customers' and suppliers' requirements.

As with any test method, results obtained from use of any 3M Food Safety product do not constitute a guarantee of the quality of the matrices or processes tested.

Safety Information

Important Informational Reading

Please read, understand, and follow all safety information contained in this User Manual prior to and during the use of the 3M Molecular Detection System. Retain these instructions for future reference.

Explanation of Signal Word Consequences	
⚠ WARNING:	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION:	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE:	Indicates a situation which, if not avoided, could result in property damage only.

Summary of instrument labels containing safety information	
⚡	**Hazardous Voltage**
⚠	**Read Accompanying Documentation**
♨	**Hot Surface**
🗑	This system is subject to the European WEEE Directive 2002/96/EC. This product contains electrical and electronic components and must not be disposed of using standard refuse collection. Please consult local directives for disposal of electrical and electronic equipment.
♻	**CAUTION**: Recycle to avoid environmental contamination This product contains recyclable parts. For information on recycling - please contact your nearest 3M Service Center for advice.

⚠ WARNING

- **To reduce the risks associated with hazardous voltage and fire:**
  - keep power supply visible and accessible at all times. Use the plug at the wall socket to disconnect the device from the main power supply.
  - use only the power cord specified for this product and certified for the country of use.
  - do not allow the power supply to get wet.
  - do not modify, or service this instrument. Use only 3M authorized service personnel.
  - do not use the power supply if the enclosure is broken.
  - do not use this instrument if power cord is damaged. Use only 3M authorized service personnel. Use only 3M specified replacement parts.
- **To reduce the risks associated with exposure to chemicals and biohazards:**
  - always follow standard lab safety practices, including wearing appropriate protective apparel and eye protection while using this instrument.
  - always perform the decontamination procedure prior to returning the instrument for service and prior to disposal.
- **To reduce the risks associated with false-negative results leading to the release of contaminated product:**
  - install instrument on a solid, dry, level surface, allowing approximately 30cm of clearance above the unit for opening the door.
  - do not use the instrument when it appears the instrument or any component is damaged.
- **To reduce the risks associated with amplicon contamination and false-positive results:**
  - do not open reagent tubes after a run is completed.
  - decontaminate the 3M Molecular Detection Instrument regularly with a 1-5% (v:v in water) household bleach solution (refer to Cleaning section).

⚠ CAUTION

- **To reduce the risks associated with exposure to chemicals:**
  - read, understand and follow the safety information on the isopropanol and bleach containers and their associated MSDS'.
- **To reduce the risks associated with environmental contamination:**
  - follow applicable regulations when disposing of this device or any of its electronic components.
- **To reduce the risks associated with hot surfaces:**
  - avoid direct contact with the aluminum heating block insert when hot.

NOTICE

- **To avoid instrument damage:**
  - do not use solvents such as acetone or thinner to clean the instrument; avoid abrasive cleaners.
  - clean instrument exterior with soft cloth using plain water or a mild, all-purpose or nonabrasive cleaner.
  - Only use the recommended cleaning and disinfection agents specified in these instructions. Contact the manufacturer if there is any doubt about the compatibility of these agents with any part of the equipment.
  - If the equipment is used in a manner not specified in this manual, the protection provided by the equipment may be impaired.

Instrument Specifications

Electrical Specifications

Model MDS100	Specification	Units
Voltage	24 V	VDC
Current	2.5 A	Amps
Power Supply	Specification	Units
Input Voltage	100-240 V	VAC
Frequency	50/60 Hz	Hertz
Maximum Input Current	1.5 A	Amps
Output Voltage	24 V	VDC
Output Current	2.5 A	Amps

Environmental Operating Conditions

Environmental Condition	Operating Condition	Units
Altitude	Max 2000 m	meters
Operating Temperature	15°C – 40°C	°C
Storage Temperature	-10°C – 60°C	°C
Relative Humidity	30–80% non-condensing	%
Pollution Degree	2	
Installation (Overvoltage) Category	II	
Indoor use only		

Instrument Specifications

	Specification	Units
Length	292 (11.5)	mm (in)
Width	213 (8.4)	mm (in)
Height	96 (3.8)	mm (in)
Weight	4.3 (9.5)	Kg (lbs)
External Connectors	USB 2.0 type B connector	
	Male 2.1 mm ID 5.5 mm OD Jack	

Regulatory Information

Safety Standards

IEC/EN 61010-1, 2nd Edition

UL 61010-1

CAN/CSA C22.2 No. 61010-1

EIC 61010-2-081

European Directives

Low Voltage Directive

EMC Directive

RoHS

WEEE

REACH

EMC Standards

USA: FCC part 15 subpart B

Canada: ICES-003

EEA: EN 61326

Australia: AS/NZF 2064.1/2

Agency Approval Marks

UL (USA)

C-UL

CE

FCC / IC

C-tick (3M code is N1108)

CB Scheme

CCC

FCC Information

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide a reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Installation and Use Guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case, the user will be required to correct the interference at his/her own expense.

Setting up the 3M Molecular Detection System

Package Contents

3M™ Molecular Detection Instrument MDS 100
External Power Supply
External Power Supply Cord(s)
USB Cable (1)
3M™ Molecular Detection Software Disc (1)
3M™ Molecular Detection Speed Loader Tray (1)
3M™ Molecular Detection Chill Block Insert (1)
3M™ Molecular Detection Chill Block Tray (1)
3M™ Molecular Detection Cap/Decap Tool – Lysis (1)
3M™ Molecular Detection Cap/Decap Tool – Reagent (1)
Lysis Tube Rack (1)
Reagent Tube Rack (1)

Minimum Computer Requirements

- Microsoft® Windows® XP with Service Pack 3 (SP3), or Microsoft® Windows® Vista with Service Pack 2 (SP2), or Microsoft® Windows® 7 (32- or 64-bit)
- 2.0 GHz Intel Pentium 4 or similar processor
- 2 GB RAM (3 GB RAM recommended)
- 20 GB of free disk space
- CD/DVD Drive
- USB 2.0

The 3M Molecular Detection System is based on the Microsoft.NET Framework 4 platform and utilizes a local Microsoft SQL Server 2008 R2 Express database for data storage. These components are included in the 3M Molecular Detection Software package and can be installed during software installation if not already present on the computer. If you are using a Windows XP computer, you must install additional Microsoft components before installing the 3M Molecular Detection Software. These components are available for free download from the Microsoft website. Refer to the *Installing the Software* section in this manual for more information.

Although Microsoft SQL 2008 R2 Express is free, it has a database size limitation. Over time, this size limitation may impact the performance of the 3M Molecular Detection Software. Please consult Microsoft's web site for more information.

The 3M Molecular Detection Software is a Microsoft Windows computer software application that communicates with up to four (4) 3M Molecular Detection Instruments for the purpose of testing for pathogens in food. The 3M Molecular Detection Software is a stand-alone software application in that it does not require network connectivity to function.

Unpacking and setting up the Instrument

1. The 3M Molecular Detection Instrument arrives in a disposable shipping container. The 3M Speed Loader Tray and pluggable heater components arrive in a separate box within the shipping container.
2. Open the shipping container to expose the 3M Molecular Detection System and its accessories.
3. Examine the 3M Molecular Detection System and its accessories for damage. If any shipping damage is found when unpacking the 3M Molecular Detection System, immediately file a damage claim with the transportation company and notify your 3M sales or service representative.
4. Install the 3M Molecular Detection Software on your computer before connecting the 3M Molecular Detection Instrument to your computer. Open the software after installation is complete. Refer to the section in this manual on installing the software.
5. Lift the instrument from the shipping container and place the instrument in its permanent location on a level surface.
6. Remove the pluggable heater and the 3M Speed Loader Tray from the shipping container and place them next to the instrument.

3M Speed Loader Tray

Pluggable Heater

3M Molecular Detection
System Instrument
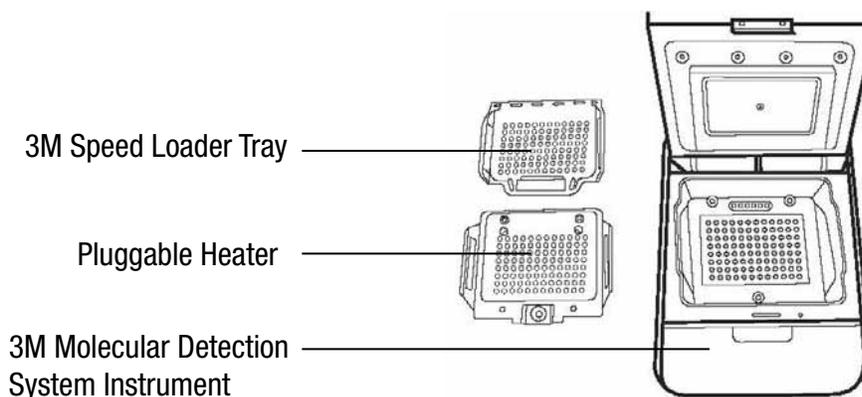
7. Using a small flat-head/slotted screwdriver, remove the silver screw covering the emergency lid release button located on the bottom of the instrument. After removing the screw, insert a thin object into the hole (e.g., a small screwdriver or unfolded paper clip) to engage the button and release the lid.

8. Use a disposable towel lightly dampened with DI water (distilled or deionized water) to gently wipe any dust or debris from the inner surfaces of the instrument.
9. Use a dry disposable towel to wipe the interior surfaces of the instrument.
10. Allow the interior surfaces of the instrument to air dry for at least 1 hour. Do not reconnect the power cable and the USB cable until you have allowed the instrument to air dry for at least 1 hour.
11. Insert the pluggable heater into the instrument and align the three screws with the holes. If the pluggable heater is level with the instrument, it was inserted correctly. If the pluggable heater is tilted 45 degrees, it was inserted backwards and it must be reinserted so it is level with the instrument.

3M Speed Loader Tray

3M Molecular Detection
System Instrument
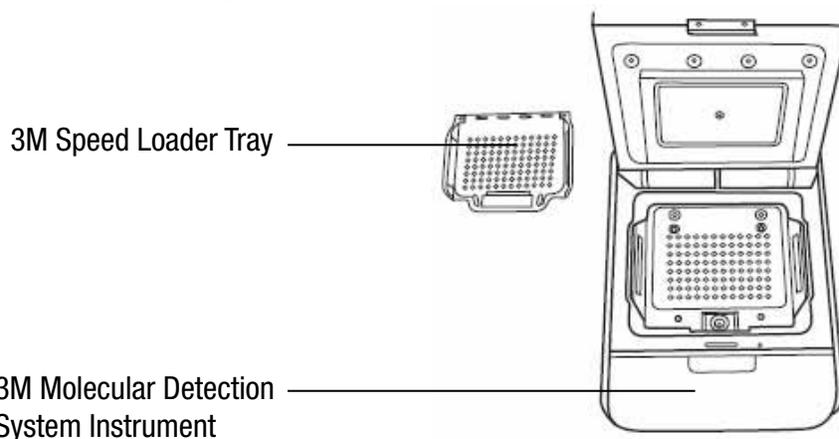
12. Use a screwdriver to turn the three Phillips-head screws on the pluggable heater a quarter turn clockwise to fasten the pluggable heater into the instrument.
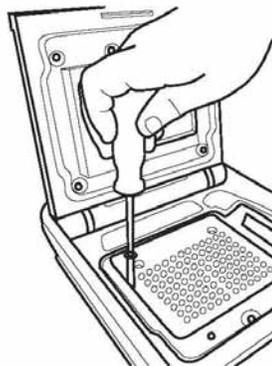
13. A minimum of 40.6 cm (16 in) of space above the bench top is required to allow for opening the instrument lid to insert or remove the 3M Speed Loader Tray.
14. Select the appropriate external power supply cord for your region, and connect the cord to the 3M provided external power supply.
15. Connect the power supply cord to the 3M Molecular Detection Instrument's power port on the back panel of the instrument, and connect the outlet plug on the power supply cord to a grounded AC power (100-240VAC +/- 10%) outlet. The power supply and/or the power supply plug must be easily accessible for quick disconnect.
16. Insert the USB cable into the 3M Molecular Detection Instrument's USB 2.0 port on the back panel of the instrument, and connect the other end of the cable to your computer's USB 2.0 port.
17. Turn the 3M Molecular Detection Instrument on using the on/off switch located on the back panel of the instrument.
18. Windows detects the presence of a new device and automatically installs the device driver software for the new device.

Installing the Software

The 3M Molecular Detection Software comes packaged with Microsoft.NET Framework 4 and Microsoft SQL Server 2008 R2 Express. **To install the 3M Molecular Detection Software, you must be logged onto Windows as an administrator or belong to the Administrators group.**

If you are using a Windows XP or Vista computer, you must install the following Microsoft components before installing the 3M Molecular Detection Software. These components are available for free download from the Microsoft website. These components are available in multiple languages and either 32- or 64-bit, so download the version appropriate for your computer.

Before using the 3M Molecular Detection Software, disable Windows power management features such as Sleep or Hibernate to prevent accidental termination of the software and any active runs.

Windows XP with SP3	Windows Vista with SP2
Windows PowerShell 1.0	Windows PowerShell 2.0
Windows Installer 4.5	.NET Framework 3.5 SP1
.NET Framework 3.5 SP1	

Do not log out of Windows or switch Windows user accounts while a run is active, as this will cause the run to be terminated.

1. Insert the 3M Molecular Detection Software Disc into your computer's CD/DVD drive.
2. Use Windows Explorer to navigate to the drive and double-click **3M.Mds.exe** to start the installation wizard. **Note:** For Windows Vista and 7, you must right-click 3M.Mds.exe and select **Run as administrator** to start the installation wizard.
3. The installation wizard displays the *3M Molecular Detection Software Setup* window. It may take a few minutes for this window to appear. Click **[Next]** to continue.
4. Read the 3M End User License Agreement, and then click the **[I Agree]** button to accept the 3M End User License Agreement and to continue with the installation wizard.
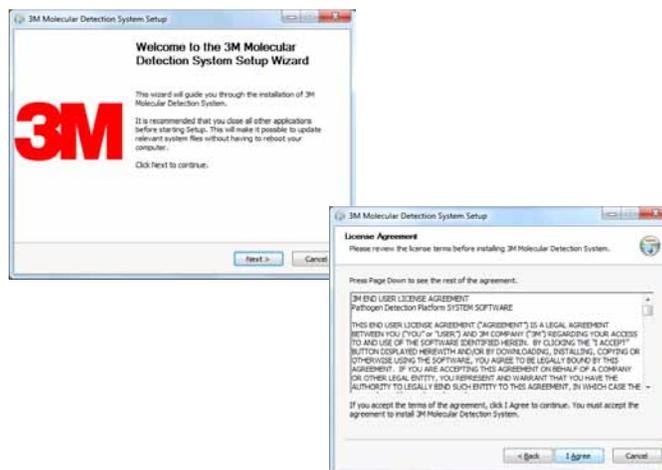
5. The installation wizard checks your computer's configuration for the software components required for the 3M Molecular Detection System. The first check is for Microsoft.NET Framework 4. If it is not present, the installation wizard starts the .NET 4 installation process. This document does not describe the entire .NET installation process. For more information on the purpose, content and installation process for the Microsoft.NET 4 component, visit http://www.microsoft.com and search for .NET Framework 4 Standalone Installer.
6. The .NET installer starts with the *Microsoft.NET Framework 4 Setup* window.

7. Read the the Microsoft license terms, and then click the **I have read and accept the license terms** check box to accept the Microsoft license terms and click the **[Install]** button.
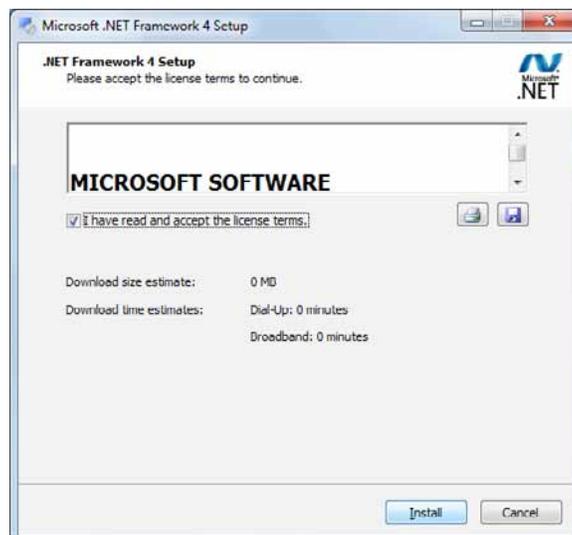
8. After installation is complete, a computer restart may be required. In this case, close the installation wizard, restart the computer, and then repeat steps 2-4.

9. In the *SQL Server* setup screen, select **Install Microsoft SQL Server 2008 R2 Express** for a new SQL Server installation. For more information on Microsoft SQL Server products and their limitations, please consult Microsoft's web site at http://www.microsoft.com/sqlserver.
   Note: If a SQLMDS server is already present on the computer (e.g., if reinstalling or upgrading the software), select **Use existing SQL Server** and skip to step
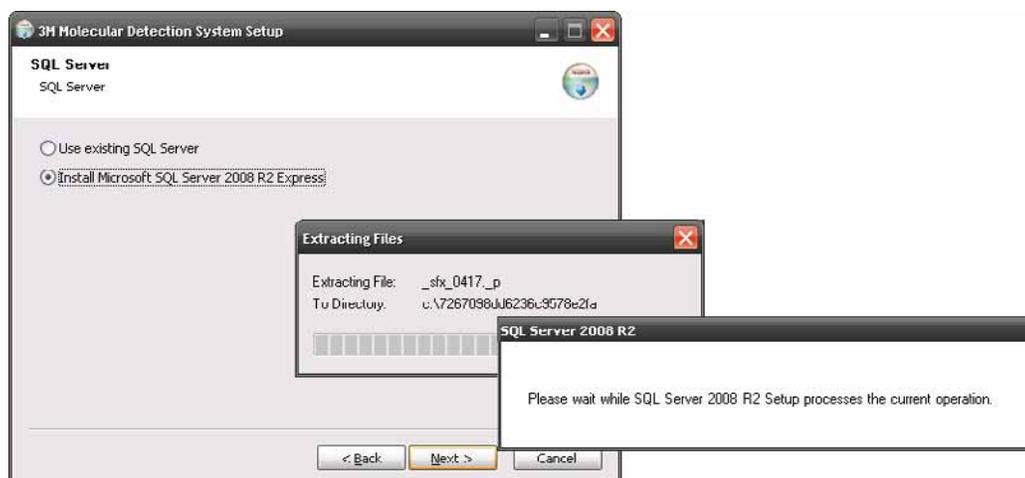
10. When the *SQL Server Installation Center* opens, select **[New installation or add features to an existing installation** and click **[Next].**
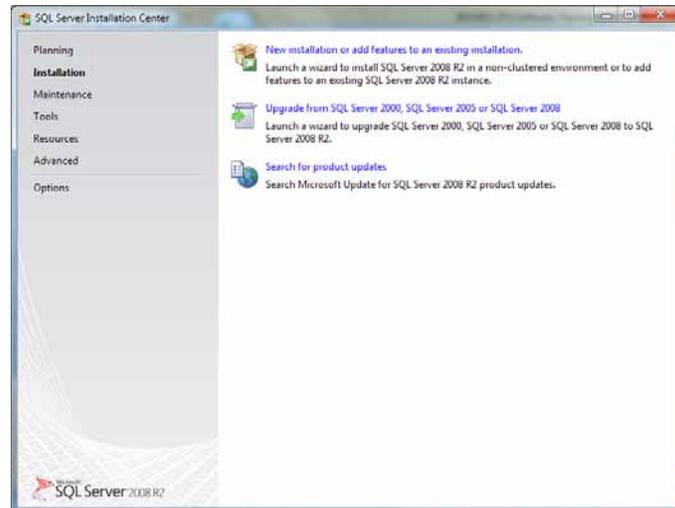
11. Read and accept the SQL Server license agreement.

12. In the *Feature Selection* screen, click **[Next]** to accept the default Instance Features, Shared Features, and directory location. Do not uncheck any features.
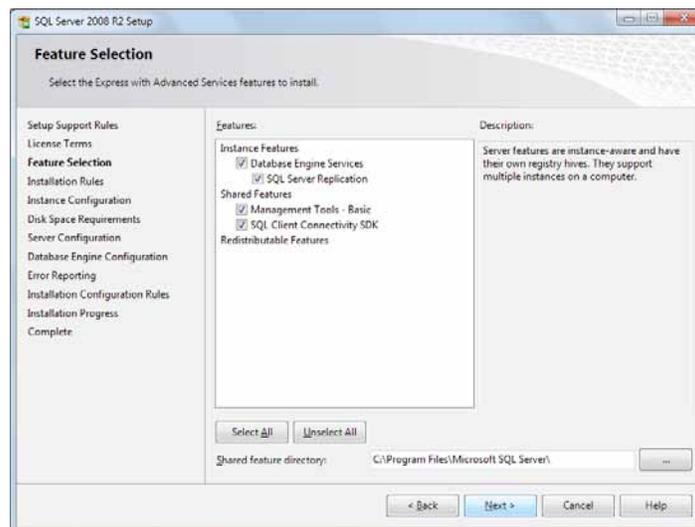
13. In the *Instance* Configuration screen, click **[Next]** to accept the **SQLMDS** Named instance and default root directory.
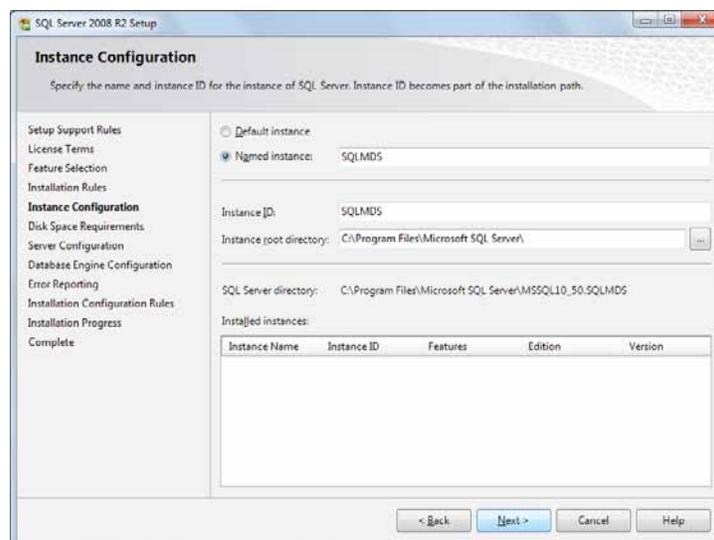
14. In the *Server Configuration* screen, select **NT AUTHORITY\SYSTEM** for the **Account Name** field for the **SQL Server Database Engine.** No Password is required. Click **[Next]** to continue.
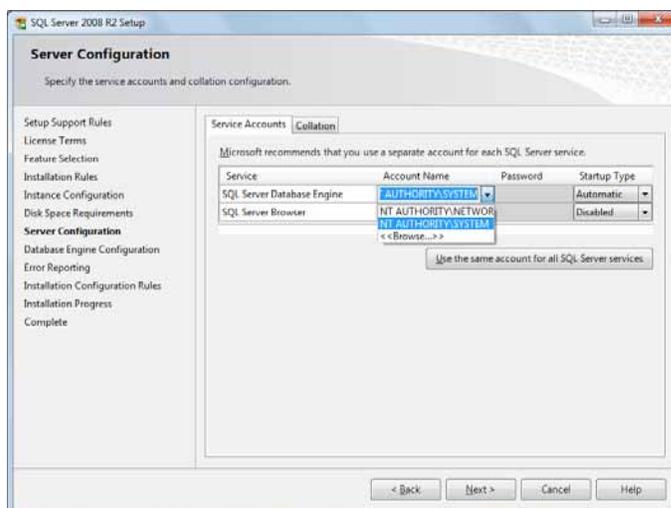
15. Click **[Next]** to accept the default Windows authentication mode. Click **[Add]** to specify additional users, if necessary. Click **[Next]** on the following screen to start the installation. An installation progress screen is shown.
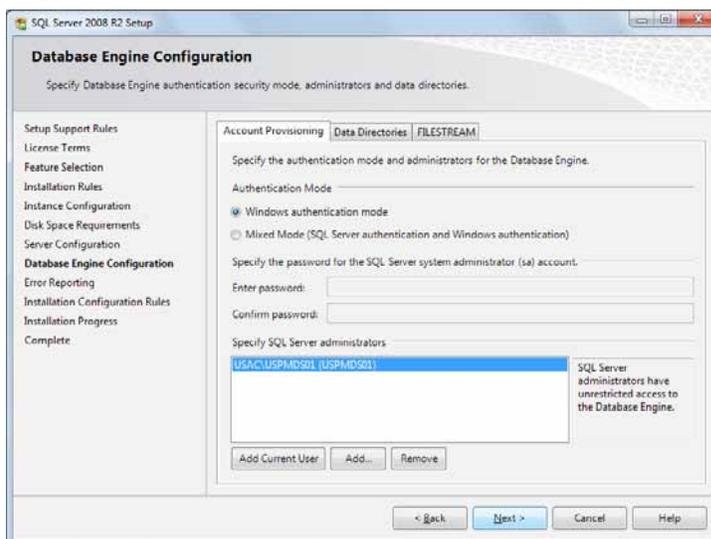
16. Following successful installation, the installation wizard displays a completion message. Click the **[Close]** button.
17. After installation is complete, a computer restart may be required. In this case, close the installation wizard, restart the computer, and then repeat steps 2-4.
18. In the *SQL Server* setup screen, select **Use existing SQL Server** and click **[Next].**

13

19. In the *Database Connection Settings* screen, the **Server Name** will be automatically populated. This screen may be blank for a few seconds. Click Next to accept the default settings unless you have a specific reason to edit them.
20. Click the **[Test Connection]** button to verify that the Server Name is correct. If the test fails, enter the <Computer_Name>\SQLMLDS as the Server Name. You can find the value for <Computer_Name> by following these steps:
    a. Click **Start** on the Windows Desktop
    b. Select **My Computer**
    c. Select **View Computer Information**
    d. Select the **Computer Name** tab

**Note:** If a 3M Molecular Detection Software database is present on the computer (e.g., if you are re-installing or upgrading the software) **Use existing database** is selected by default to connect to the existing database and preserve the data. If this option is not selected and you want to use an existing database, be sure to select **Use existing database** checkbox and select the **Mds** database from the drop-down list. If a 3M Molecular Detection Software database is present, but you would like to create a new database, uncheck this setting. This will **erase all data** in the existing database, so be sure you have backed up the database prior to this step.

21. The installation wizard asks for your name and address. This information is required.
22. Setup an initial Administrator user. This is required. Enter all the information listed below, and then click the **[Next]** button. All fields are required.
    a. Enter a full name for the administrator user in the **Full Name** field. Any text string is allowed.
    b. Enter the user name to be used at login in the **User Name** field. Any text string is allowed. The user name is not case sensitive.
    c. Enter the password in the **Password** field. Any text string is allowed. The Password is case sensitive.
    d. Enter the Password again to confirm it in the **Confirm Password** field. The Password and Confirm Password that you enter must be identical.

Note: After installation, the password **cannot be recovered** if forgotten. **If you forget the password, you must re-install the Molecular Detection Software and create a new database.**

The 3M Molecular Detection Software does not enforce any restrictions on the structure of login names or passwords. If security is important, you are urged to follow secure name and password best practices. Both IBM and Microsoft provide free security best practice guidelines. See http://www.ibm.com/developerworks or http://technet.microsoft.com for more information.

23. Click **[Next]** to continue with the installation wizard.
24. Select a format for the default Run ID. The available formats of the default Run ID all include the current date followed by the creation sequence number. The date format is a two digit month, two digit day and either a two or four digit year. The sequence number is created by the system and can be a one, two or three digit number enclosed by parenthesis, hyphens or underscores.

25. Click **[Next]** to continue with the installation wizard.
26. The software provides optional, customizable fields used to describe samples. The default values for these fields are listed in this table. You can accept these default values by clicking **[Next]** on the *Custom Fields Configuration* window, or you can customize these fields by using the options available.
    Note: You will not be able to customize these fields, except for the Show option, after the installation process is complete.

Sample Fields	Field Name	Field Type	Field Values	Show
Field 1	Sample Type	List	Raw Processed Environmental	Show
Field 2	Description	Text		Show
Field 3	Product	Text		Show
Field 4	Brand	Text		Show
Field 5	Lot Number	Text		Show
Field 6	Line	Text		Show
Field 7	Customer	Text		Show
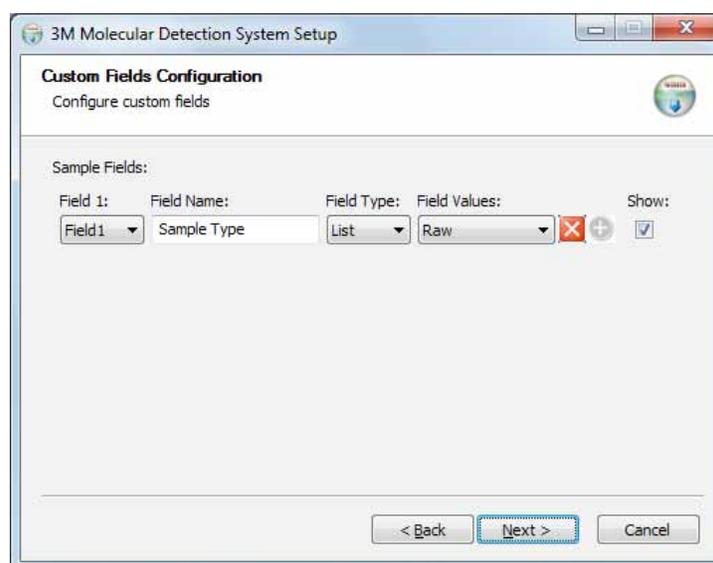
27. To modify any of the default fields, perform the following actions.

    a. Use the **Field** dropdown menu to select the field you want to change. There are seven fields total.

    b. Enter the new Field name into the **Field Name** field.

    c. Use the **Field type** dropdown menu to select the Field type.

        i. Text – You can enter any free-format text into a text field.
        ii. List – You must select a field value from a predefined list for a list field.

    d. If you selected List in the previous step, enter the items for the pre-defined list into the **Field values** field. You can add field values to the Field values list after you click **[Next]** in this *Custom Fields Definition* window and complete the installation. However, you cannot remove field values from the Field values list after you click **Next** in this *Custom Fields Definition* window (step 29 below) and complete the installation.

    e. Click the ⊕ icon to add a field value. This opens a textbox (shown to the right) where you enter the new field value.

    f. Accept the new field value you entered by clicking the ✓ icon.

    g. Select the **Show** checkbox to show the selected field, or clear the **Show** checkbox to hide the selected field. If a field is hidden, it is not used in sample definition or report generation. This can also be changed after installation.

28. Repeat the above steps for each of the fields you want to change.
29. Click the **[Next]** button when you finish customizing these fields.

30. In the *Import/Export Options* screen, you can select the default locations for import and export files. This can also be changed after installation, in the Administration>Import and Export Options menu.
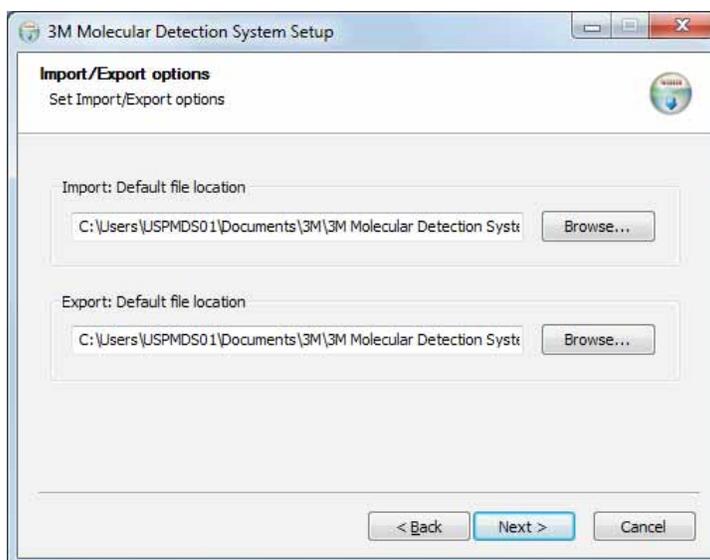
31. In the next three screens, the installation wizard asks for the Destination Folder, the locations for Application Shortcuts and the Start Menu Folder. You can modify the defaults for these fields if necessary. If you don't have a specific reason to modify these fields, the default values are recommended. Click **[Next]** to proceed through each screen.

 a. Destination Folder – This is the root installation directory for the 3M Molecular Detection Software.

 b. MDS Application Shortcuts – These are the locations where the installation wizard will place the 3M Molecular Detection Software shortcuts.

 c. Start Menu Folder – This is the location within the Start menu where the installation wizard will place the 3M Molecular Detection Software shortcut.

32. Click **[Install]** on the Choose Start Menu Folder window to begin the installation. A progress bar is shown.
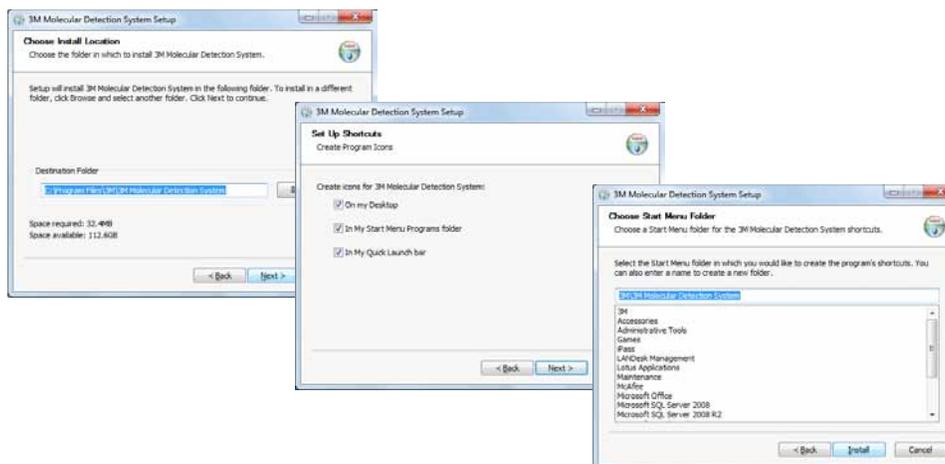
33. Click **[Finish]** when the installation wizard displays the *Completing the 3M Molecular Detection Software Setup Wizard* window.
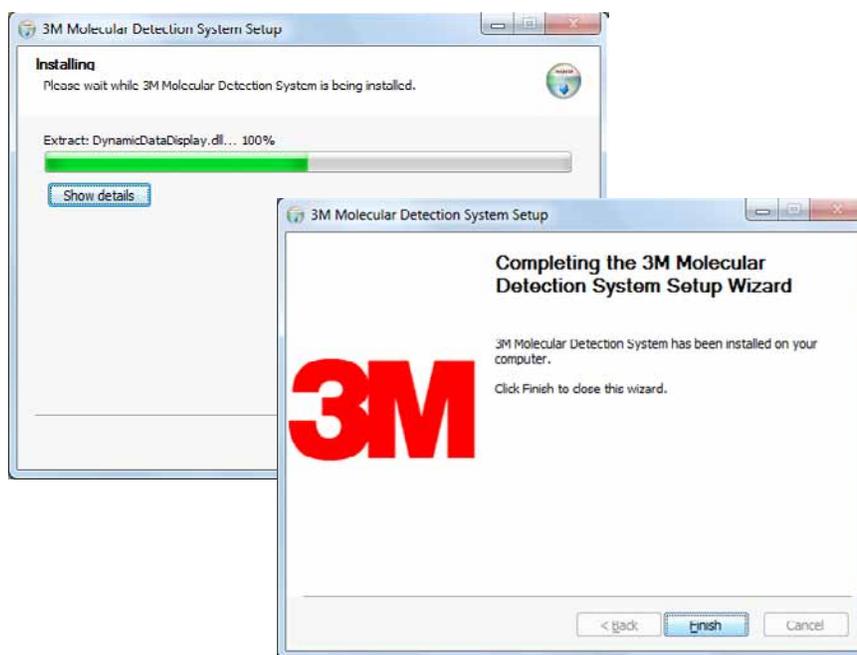
Operating the 3M Molecular Detection Software

Before using the 3M Molecular Detection Software, disable Windows power management features such as Sleep or Hibernate to prevent accidental termination of the software and any active runs.

Do not log out of Windows or switch Windows user accounts while a run is active, as this will cause the run to be terminated.

Logging in

1. To start the 3M Molecular Detection Software, go to the Windows **Start Menu,** select **Programs** then select **3M Molecular Detection System,** or double click the [mds] icon located on the Microsoft Windows desktop.
2. Enter your user name in the **User Name** field and enter your **Password.**
3. To select a language for the user interface other than the default language (English), use the **Language** dropdown menu to select the language for the user interface.
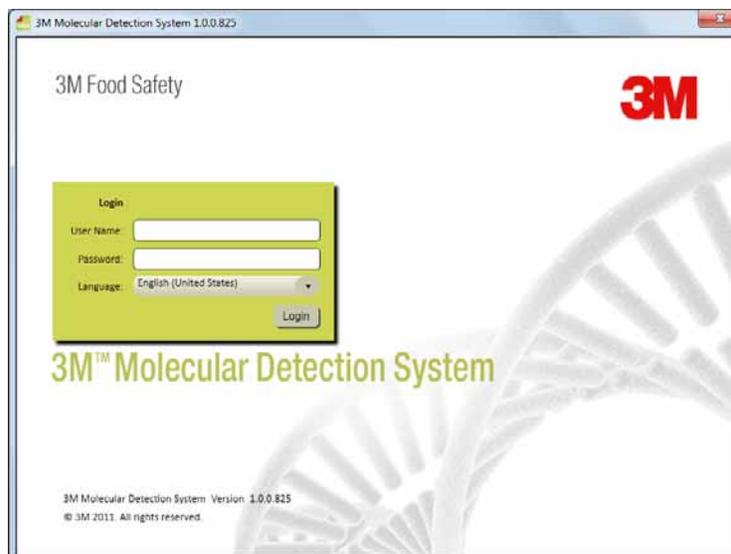
Login Screen

Using the Start Page

1. The 3M Molecular Detection Software displays the Start Page window after you login successfully. You can select and perform the following operations from the Start Page by clicking the text beside the icons.

    •   Setup New Run – Create a new Run definition

    •   Start Configured Runs – Start a Run that was previously defined

    •   View Run Results – View the results from a previously executed Run

    •   Generate Reports – Create various standard reports or search results in the database

    •   Administration – Administer and configure 3M Molecular Detection System software

    •   User Manual – Open the 3M Molecular Detection System User Manual (this document).

2. If you want to close the Start Page, click the close icon [image] on the Start Page tab.
3. You can open the Start Page at any time.

    a. Select **[View]** on the menu bar.

    b. Select **Start Page.** The Start Page with the collapsing Sidebar, Main Menu and Status Bar is shown below.

Start Page

Using the Collapsing Sidebar

1. Select **[View]** on the menu bar.
2. Select **Sidebar Menu** to make the Sidebar button appear on all panes regardless of the active tab. The Sidebar Menu is a toggle feature, which means you can turn it on by selecting it and turn if off by selecting it again. If a check mark appears next to the Sidebar Menu option in the View menu, the feature is on. If a check mark does not appear next to the Sidebar Menu option in the View menu, the feature is off.

3. Hover the cursor over the Sidebar button [image] to open the Collapsing Sidebar.

4. You can click the Autohide button [image] next to the exit button on the sidebar to toggle the Autohide function.

5. From the Collapsing Sidebar, you can select and perform the following operations by clicking the text beside the icons.

-   Setup New Run – Create a new Run definition
-   Start Configured Runs – Start a Run that was previously defined
-   View Run Results – View results from a previously executed Run
-   Generate Reports – Create various reports for Samples, Assay Kits, Runs and Instruments
-   Manage Samples – Create and modify Sample definitions
-   Manage Assay Kits – Create and modify Assay Kit definitions

Using the Menu Bar

The Menu Bar is available at all times. You can use the Menu Bar to perform most tasks in the 3M Molecular Detection System application software. The menu items in italic are restricted to Administrator users.

1. Click the item on the menu bar you want to use.
2. Click the item you want to use on the cascading menu that appears.

Menu Bar Item	Description
File	
New Run	Create a new Run definition
Open Runs…	Search for previously defined Runs
Load Run Template…	Create a Run from a saved Template
Save Run	Save the Run definition
Save Run as Template…	Save the Run definition as a Template
Print…	Print the Run definition
Logout…	Logout of the software, display Login screen
Exit	Exit the software
Manage	
Samples…	Create and manage Sample definitions
Assay Kits…	Create and manage Assay Kit definitions
Reports	
Search Results…	Report of test results across multiple Runs
Samples…	Report of all Samples defined in the system
Assay Kits…	Report of all Assay Kits defined in the system
Completed Runs…	Report of all successfully completed Runs
Users…	Report of all Users defined in the system
Instrument Self-Check Results…	Report of Instrument diagnostics
Instrument Temperature Log…	Report of Run temperature readings
Administration	
Users…	Create and manage Users
Instruments…	Manage the known instruments
Configure Fields…	Change the user-defined Sample and Assay Kit fields
Import and Export Options…	Set options for importing and exporting data
Audit Log…	Report of user activity
Change Password…	Change the active user's password
Options…	Additional administrator options
View	
Start Page	Display the Start Page
Sidebar	Show/Hide the Sidebar

Help
    User Manual   Display the User Manual
    About 3M Molecular Detection System   Display the About screen

Using the Status Bar

1. The 3M Molecular Detection Software displays a status bar at the bottom of the software's main window. This status bar contains three components. From left to right, these components are:
    1. Current user – User Name of the user who is currently logged-in.

    2. Instrument status – Status of the 3M Molecular Detection Instruments currently connected to the system. Refer to the section in this manual on monitoring the instrument status for more information.

    3. Status message – System informational messages.

Shutting down the software

1. You can use either of two ways to shut down the software.
    a. Select [File] on the menu bar, and then select **Exit**

    b. Click the close button

2. Shutting down the software logs out the current user, terminates any active test runs (confirmation required), places all connected devices in Standby mode, and terminates the software.

Logging out

1. Select **[File]** on the menu bar, and then select **Logout…**
2. The 3M Molecular Detection Software displays the Login window. Refer to the section in this manual on logging in for more information.
3. Logging out of the software logs out the current user, terminates any active test runs (confirmation required), places all connected devices in Standby mode, and returns to the login screen.

Monitoring the instrument status

You can check the status of an instrument in the following ways:

- Check the color of the instrument's status light.

- Hover the cursor over an instrument icon in the software status bar to display the detailed status information about that instrument. An example of this is shown below.

- Double-click an instrument icon in the software status bar, or you can right-click an instrument icon and then select **Show instrument status tab.** This opens a new tab with detailed status information about the instrument. An example of this is shown below

Instrument Name:	MDS 1
Instrument Status:	Ready
Lid State:	Closed
Lock State:	Unlocked
Heater State:	On
Core Temperature:	60.1°C
Lid Temperature:	65.3°C
Last Self-Check Result:	All tests passed
Serial Number:	0211060004
Firmware Version:	v01.39

Current User : Admin   MDS 1
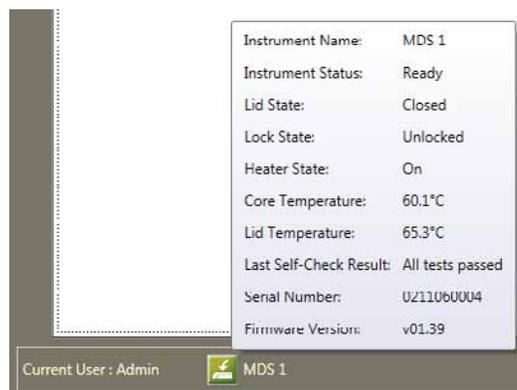
Instrument Status Tooltip

Instrument Status Tab

Field Name	Description
Instrument Name	The instrument name you defined when you added the instrument
Instrument Status	The instrument's current operational status. Refer to the table of operational statuses below.
Lid State	The instrument's lid status (open or closed)
Lock State	The instrument's lid lock status (locked or unlocked)
Heater State	The instrument's heater status (on or off)
Core Temperature	The temperature of the instrument's pluggable heater in degrees Celsius
Lid Temperature	The temperature of the instrument's lid heater in degrees Celsius
Last Self-Check Result	The results of the last previous diagnostic test done on the instrument
Serial Number	The instrument's serial number
Firmware Version	The instrument's firmware version number

Status Light	Icon	Instrument Status
Off	(White)	The instrument is in **Standby** state while it waits to start the heaters to perform a test run, and the lid is closed. OR The instrument is in **Diagnose** state while it runs a Self-Check, and the lid is closed.
Off	(White)	The instrument is in **Standby** state while it waits to start the heaters to perform a test run, and the lid is open. OR The instrument is in **Diagnose** state while it runs a Self-Check, and the lid is open.
Orange	(Orange)	The instrument is in **Heat** state with the temperature increasing to the required level, and the lid is closed. The instrument is not yet ready to perform a run.
Orange	(Orange)	The instrument is in **Heat** state with the temperature increasing to the required level, and the lid is open. The instrument is not yet ready to perform a run.
Green	(Green)	The instrument is in **Ready** state with the temperature at the required level, and the lid is closed. The instrument is ready to perform a run.
Green	(Green)	The instrument is in **Ready** state with the temperature at the required level, and the lid is open. The instrument is ready to perform a run.
Blue	(Blue)	The instrument is in **Test** state while it performs a run, and the lid is closed.
Red	(Red)	The instrument is in **Test Complete** state after it completes a run, and the lid is closed.
Flashing Red	(Flashing Red)	The instrument is in **Failed** state after it fails a Self-Check.

23

Setting up the Administrative Information

Users

Users Window

Adding users

Only administrator level users can add users.

1. Click **[Administration]** on the menu bar, and then select **Users….**
2. The *Setup* window displays a current list of users on the Users tab in the sequence in which they were added.
3. Click the **[Add]** button to add a new user.
4. Enter the new user's full name in the User Full Name field. This is the name that appears on reports and on windows in the 3M Molecular Detection Software. This is typically the user's first name and last name. This field is required.
5. Enter the new user's user name in the User Name field. This is the name that the user enters in the User Name field in the Login window. The user name is case sensitive. This field is required.
6. Use the Role drop-down menu to select a role for the new user. This field is required.
   - A User (standard user) can define and manage Assay Kits, Samples and Runs, execute Runs, create reports and perform limited instrument management.
   - An Administrator can perform all activities of a user plus user management, full instrument management control, and other options.
7. Enter the new user's password in the Password field. The password is case sensitive. The password is displayed as ***** as you enter it. This field is required.
8. Enter the new user's password again in the Confirm password field. This field is required.
9. Click the **[Apply]** button to apply the addition, or click the **[OK]** button to apply the addition and return to the *Start Page* window.

Deleting users

Only administrator level users can delete users.

1. Click **Administration** on the menu bar, and then select **Users….**
2. The *Setup* window displays a list of active users on the Users tab in the sequence in which they were added.
3. Click the user you want to delete from the list. You cannot delete a user that has defined any system component (Assay Kit, Sample, Run). Users cannot delete themselves.
4. Click the **[Delete]** button.
5. Click the **[Apply]** button to apply the deletion, or click the **[OK]** button to apply the deletion and return to the *Start Page* window.

Hiding users

Only administrator level users can hide users. You should hide users who are no longer using the 3M Molecular Detection Software, but who have defined any system component (Assay Kit, Sample, Run) in the past. Hiding a user removes the user name from the user name list while leaving the user in the database. This allows management of active users while maintaining the integrity of historical data.

1. Click **Administration** on the menu bar, and then select **Users….**
2. The *Setup* window displays a list of active users on the Users tab in the sequence in which they were added. Click the user you want to hide.
3. Click the **[Hide]** button.
4. Click the **[Apply]** button to apply the deletion, or click the **[OK]** button to apply the deletion and return to the *Start Page* window.

Changing passwords

1. Click **[Administration]** on the menu bar, and then select **Change Password….**
2. The *Change Password* window displays the current user
3. Enter the user's current password in the Current Password field.
4. Enter the user's new password in the New Password field.
5. Enter the user's new password again in the Confirm Password field.
6. The password you enter into the New Password field and the password you enter into the Confirm Password must match exactly. If they do not match exactly, an error message will appear. The password is case sensitive. The password is displayed as ***** as you enter it.
7. Click the **[OK]** button to apply the change.

Viewing users

1. Click **Administration** on the menu bar, and then select **Users…**
2. The *Setup* window displays a list of active users on the Users tab in the sequence in which they were added. Show all hidden users in addition to active users by clicking the Show hidden checkbox.
3. Click the user you want to view.

Instruments
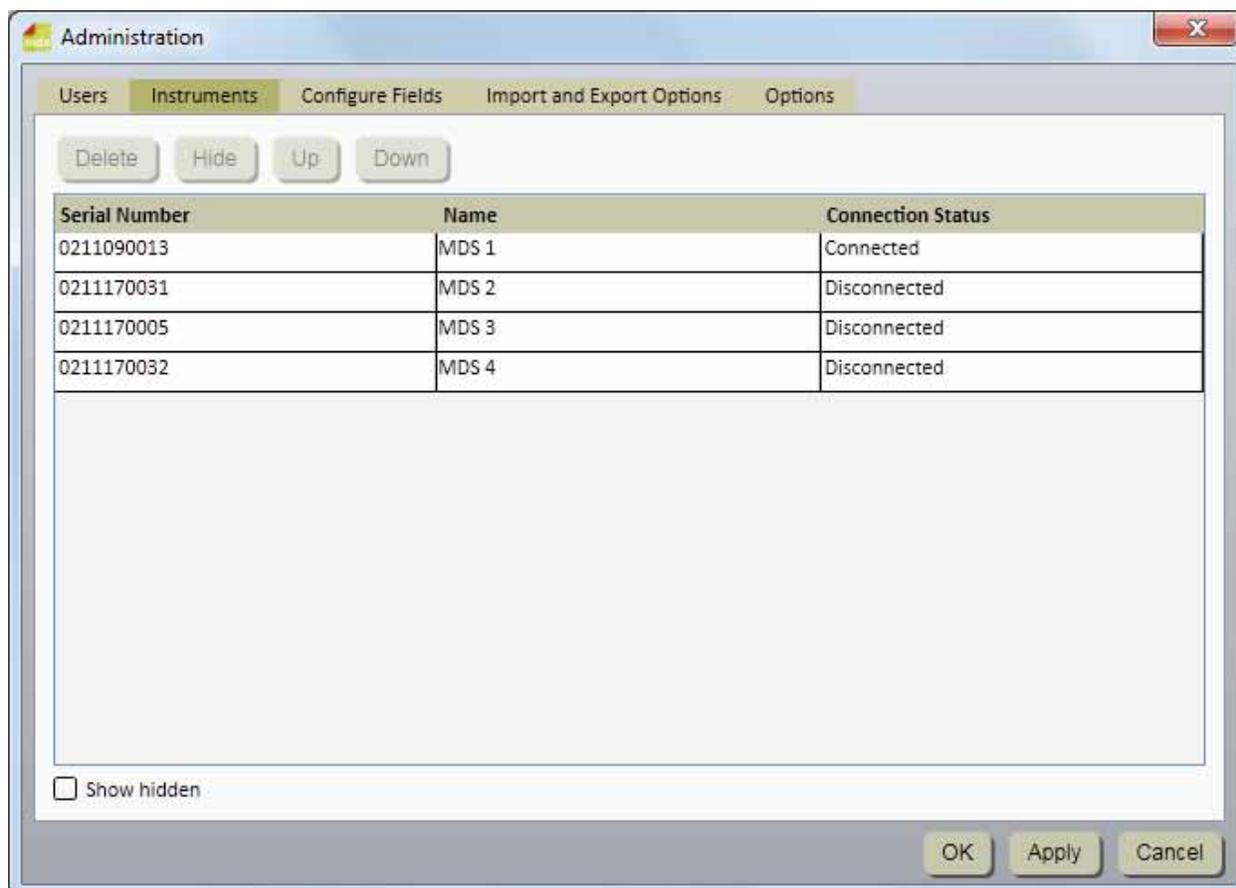
Instruments Window

Adding instruments

The 3M Molecular Detection Software automatically detects instruments that are powered on and are connected to the computer by a USB cable when the software starts. The software also automatically detects instruments when you power on instruments and connect instruments to the computer by a USB cable.

1. Click **Administration** on the menu bar, and then select **Instruments….** The Instrument tab on the *Administration* window displays all instruments that have been automatically detected.
2. The 3M Molecular Detection Software detects and manages a maximum of four instruments. A USB hub may be needed to support the maximum number of instruments.
3. When the 3M Molecular Detection Software detects an instrument, it retrieves the instrument's serial number from the instrument and stores the serial number in the serial number field. You cannot change the instrument serial number.
4. The 3M Molecular Detection Software also uses the serial number as the default device name. You can change the device name along with the device description (initially blank). The device name and description can be any free-format text.
5. The 3M Molecular Detection Software automatically initializes an instrument when it detects the instrument. The sequence of detection is determined by the underlying Microsoft Windows operating system. It may not have any relationship to specific USB ports. Initialization consists of these steps:
    - Establishes USB communication with the instrument
    - Unlocks the instrument
    - Performs basic diagnostic tests on the instrument
    - Terminates any active test runs
    - Turns on the instrument's heaters

6. The instrument status bar displays only the first four instruments in the *Instruments* list. These first four instruments that are displayed may or may not be the four instruments that are currently communicating with the 3M Molecular Detection Software.

Naming instruments

Only administrator level users can edit instruments.

1. Click **Administration** on the menu bar, and then select **Instruments….**
2. The Instrument tab on the *Administration* window displays all instruments that have been automatically detected
3. Click the instrument you want to rename.
4. Enter a name into the Name field. The instrument name can be any free-format text. You cannot change the instrument serial number.
5. Click the **[Apply]** button to apply the name, or click the **[OK]** button to apply the name and return to the *Start Page* window.

Hiding instruments

Only administrator level users can hide instruments. You should hide instruments that are no longer used by the 3M Molecular Detection Software, but that have been used for at least one run in the past. Hiding an instrument removes the instrument name from the instrument name list while leaving the instrument in the database. This allows management of active instruments while maintaining the integrity of historical data.

1. Click **Administration** on the menu bar, and then select **Instruments….**
2. The Instrument tab on the *Administration* window displays all instruments that have been automatically detected.
3. Click the instrument you want to hide.
4. Click the **[Hide]** button to hide the instrument.
5. Click the **[Apply]** button to apply the change, or click the **[OK]** button to apply the change and return to the *Start Page* window.

Changing the order of instruments

Only administrator level users can change the sequence of instruments.

1. Click **Administration** on the menu bar, and then select **Instruments….**
2. The Instrument tab on the *Administration* window displays all instruments that have been automatically detected.
3. Click the instrument you want to move to a different position in the list.
4. Click the **[Up]** button to move the selected instrument one position closer to the top of the list, or click the **[Down]** button to move the selected instrument one position closer to the bottom of the list.
5. Click the **[Apply]** button to apply the change, or click the **[OK]** button to apply the change and return to the *Start Page* window.
6. The instrument status bar displays only the first four connected instruments in the instruments tab.

Deleting instruments

Only administrator level users can delete instruments.

1. Click **Administration** on the menu bar, and then select **Instruments….**
2. The Instrument tab on the *Administration* window displays all instruments that have been automatically detected.
3. Click the instrument you want to delete from the list. You cannot delete an instrument that is active, or an instrument that has been used for at least one run in the past.
4. Click the **[Delete]** button.
5. Click the **[Apply]** button to apply the deletion, or click the **[OK]** button to apply the deletion and return to the *Start Page* window.

Viewing instruments

Any level user can view users.

1. Click **Administration** on the menu bar, and then select **Instruments….**
2. The Instrument tab on the *Administration* window displays all instruments that have been automatically detected. Show all hidden instruments by clicking the Show hidden checkbox. The instrument status bar displays only the first four connected instruments in the instruments tab.

Configuring Fields
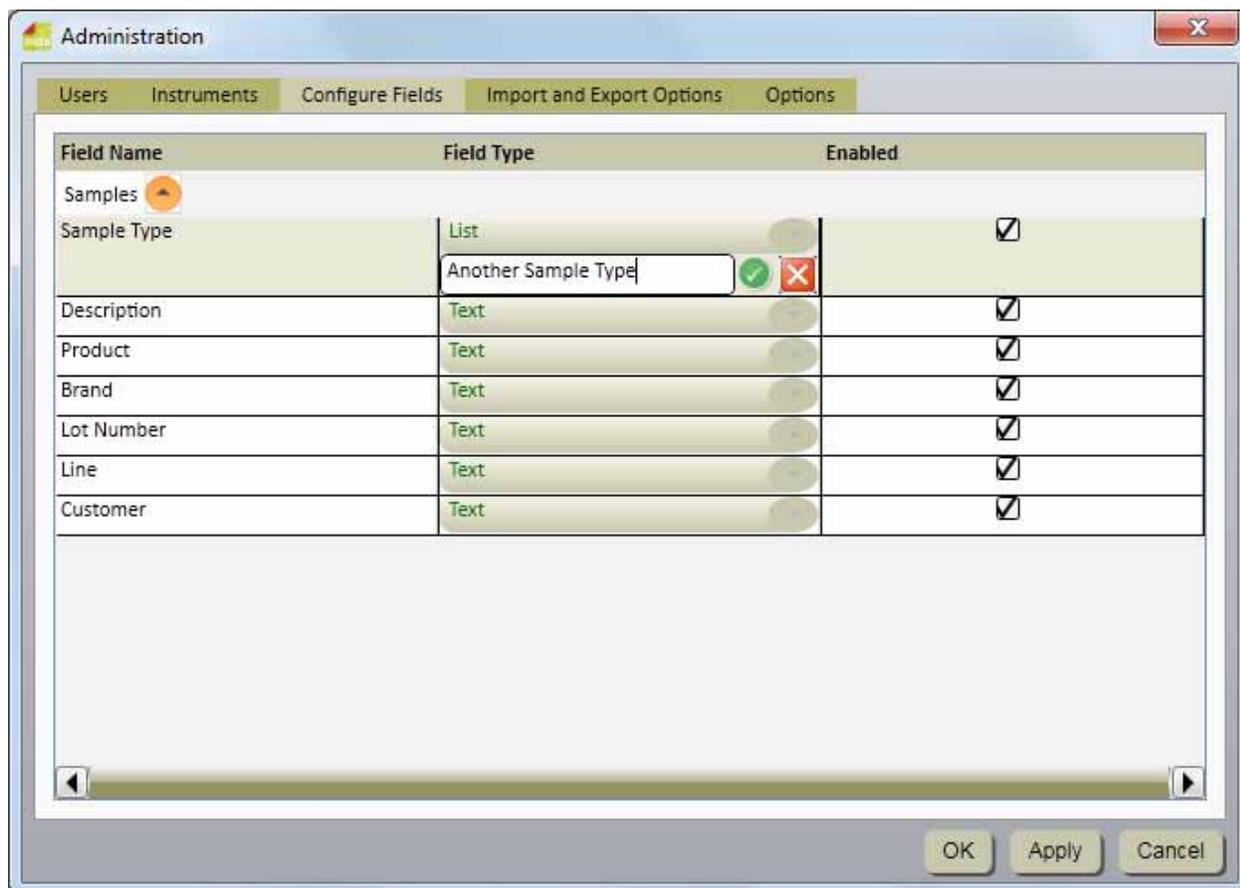
Only administrator level users can configure fields.

1. The 3M Molecular Detection Software provides seven user-definable sample fields. You define the seven sample fields (column headers) during the installation of the software.
   - You cannot change the Field Names or the Field Types after you define them during the installation.
   - You can change the Field Type List values and the Enable checkboxes after installation.
2. Click **Administration** on the menu bar, and then select **Configure Fields….**
3. The *Configure Fields* tab displays the current Field Names, Field Types and a checkbox for enabling the field.
4. You can add a new value to a List Field Type:
   a. Click the ⊕ symbol next to the drop down selector.
   b. Enter the new value for the list as shown in Figure 21. The new value can be any free-format text.
   c. Press the **[Enter]** key ✓ r click the symbol.
   d. Click the **[Apply]** button to apply the addition, or click the **[OK]** button to apply the addition and return to the *Start Page* window.
5. You cannot delete a value from a List Field Type.

6. You can enable a Field Name to make it appear on the Sample tab in the Setup window or you can disable a Field Name to prevent if from appearing on the Sample tab in the Setup window.

   a. To enable or disable a Field Name, simply click the check box in the Enabled column. (☑ ☐)

   b. Click the **[Apply]** button to apply the change, or click the **[OK]** button to apply the change and return to the *Start Page* window.

7. An example of configuring a field is shown below. In this example, the value "Another Sample Type" is added to the Sample Type dropdown list. Notice that the fields that are not enabled in are hidden in the Samples wndow in.

Adding a New Value to a List
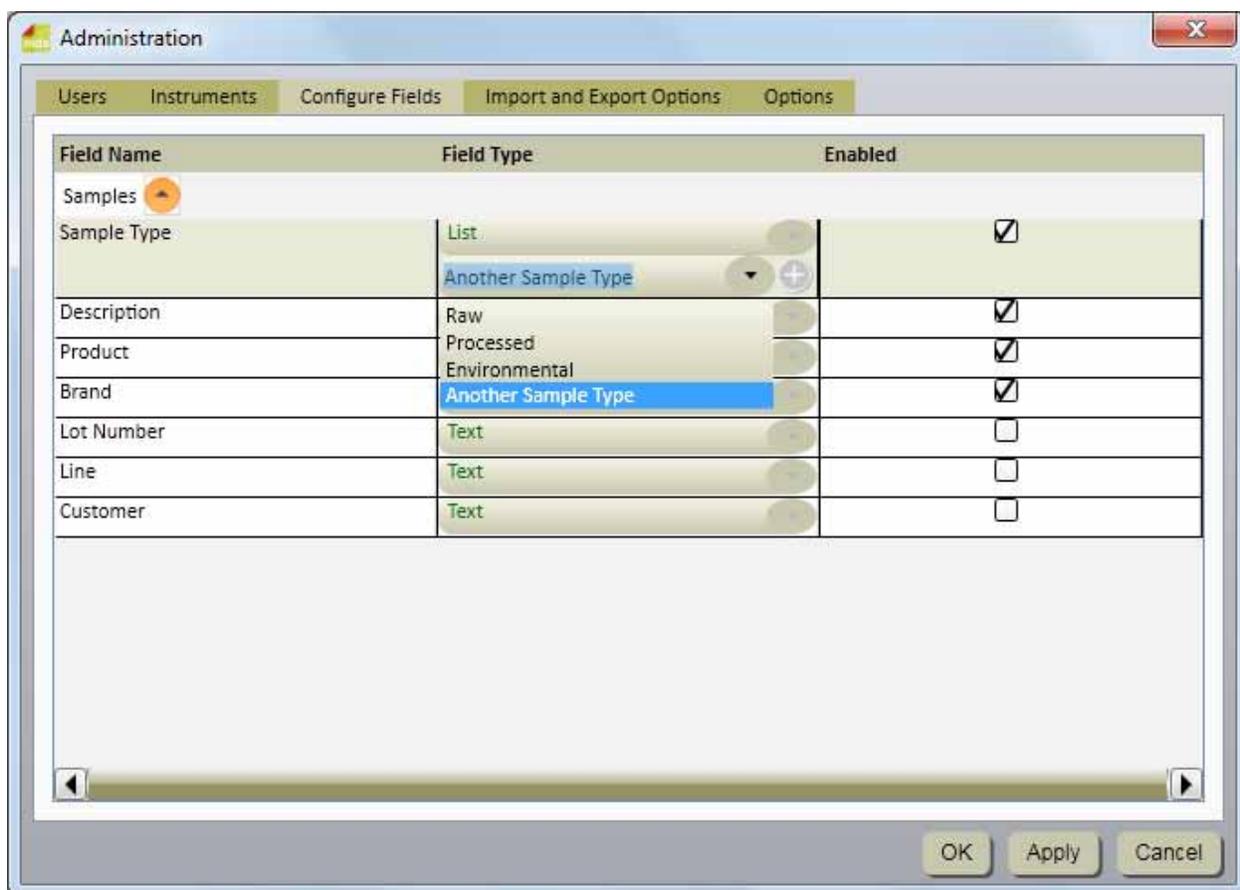
New Sample Type and Disabled Fields

Field Change Effects on Sample Setup Tab **Samples**

Samples Window

Adding samples

1. Samples are the food or environmental samples that you are testing for the presence of pathogen.
2. Click **Manage** on the menu bar, and then select **Samples….** You can also select **Manage Samples** on the Sidebar, or select the **Samples** tab if the *Manage* window is already open. You can also import Sample information. Refer to the section in this manual on Importing/Exporting samples for more information.
3. The *Setup* window displays a list of the current Sample IDs on the Samples tab, along with the custom field values for each Sample ID.
4. Click the **Add** button to insert a new row at the bottom of the list of Sample IDs.
5. Enter the new Sample ID into the **Sample ID** column of the new row. The Sample ID is required and it must be unique.
6. Enter values for the custom fields into the new row in the column corresponding to each custom field. The custom fields are optional. Sample Type field is a list field, and the other custom fields are text fields.
7. Click the **[Apply]** button to apply the addition, or click the **[OK]** button to apply the addition and return to the *Start Page* window.

Modifying samples

Only administrator level users can manage samples. You can only modify samples if they have never been used in a run.

1. Click **Manage** on the menu bar, and then select **Samples….** You can also select **Manage Samples** on the Sidebar, or select the **Samples** tab if the *Manage* window is already open.
2. The *Setup* window displays a list of the current Sample IDs on the Samples tab, along with the custom field values for each Sample ID.
3. Click the field (Sample ID, Sample Type, or custom field) that you want to modify. Use the vertical scroll bar to display additional Samples if necessary.
4. Enter the modification into the field you want to modify. The Sample ID is required and it must be unique. The custom fields are optional. Sample Type field is a list field, and the other custom fields are text fields.
5. Click the **[Apply]** button to apply the change, or click the **[OK]** button to apply the change and return to the *Start Page* window.

Deleting samples

Only administrator level users can manage samples. You can only delete samples if they have never been used in a run.

1. Click **Manage** on the menu bar, and then select **Samples….** You can also select **Manage Samples** on the Sidebar, or select the **Samples** tab if the *Manage* window is already open.
2. The *Manage* window displays a list of the current Sample IDs on the Samples tab, along with the custom field values for each Sample ID.
3. Click the Sample ID that you want to delete. Use the vertical scroll bar to display additional Samples if necessary. Do not delete a Sample ID that has been used in a test run. Hide a Sample ID that you no longer need. Refer to the section in this manual on Hiding samples for more information.
4. Select the **Delete** button to delete the selected Sample ID.
5. Click the **[Apply]** button to apply the deletion, or click the **[OK]** button to apply the deletion and return to the *Start Page* window.

Hiding samples

Only administrator level users can manage samples. Hide Sample IDs from view when you no longer test those Sample IDs, and you want to minimize the number of Sample IDs that appear in the displays. Delete Sample IDs when you no longer use those sample IDs and the Sample IDs have never been used in a test run. Refer to the section in this manual on Deleting samples for more information.

1. Click **Manage** on the menu bar, and then select **Samples….** You can also select **Manage Samples** on the Sidebar, or select the **Samples** tab if the *Manage* window is already open.
2. The Manage window displays a list of the current Sample IDs on the Samples tab, along with the custom field values for each Sample ID.

3. Click the Sample ID that you want to hide. Use the vertical scroll bar to display additional Samples if necessary. You can press and hold [Shift] while you click another Sample ID to hide both Sample IDs and all Sample IDs between them. You can also press and hold [Ctrl] while you select multiple Sample IDs to hide multiple Sample IDs.

4. Select the **Hide** button to delete the selected Sample ID.

5. Click the **[Apply]** button to apply the change, or click the **[OK]** button to apply the change and return to the *Start Page* window.

6. You can automatically hide sample IDs that have been used, but have not been used for a specified length of time. Select the length of time using the Auto-hide samples every dropdown menu. For example, select Monthly to autohide samples that were last used in a run one month ago.

7. Select the Show Hidden option to display Sample IDs that are hidden as well as Sample IDs that are not hidden.

Importing samples

1. You can import Sample IDs and their corresponding values for the custom fields in the form of delimited data files, e.g., Comma Separated Values (.CSV) files. Use this feature if the Sample IDs can be exported from a LIMS or from another system into the 3M Molecular Detection System.

2. Click **Manage** on the menu bar, and then select **Samples….** Only administrator level users can manage samples. You can also select **Manage Samples** on the Sidebar, or select the **Samples** tab if the *Setup* window is already open.

3. The Samples tab displays a list of the current Sample IDs along with the custom field values for each Sample ID.

4. The default file type is a Comma Separated Values (CSV) file. You can select other file types and delimiters. Refer to the section in this manual on import/export file formats.
   - By default, the first row is a header row that contains field names. You can change this in the Import and Export Options. Refer to the section in this manual on import and export options.
   - The sequence of the fields in the samples import file must be identical to the sequence of the fields on the **Samples** tab of the *Setup* window.
   - The Sample ID is a required field and it must be unique.
   - The data in a sample import file that's intended to be imported into a list field must match one of the selections for the list field. For example, a sample type must be Raw, Processed, or Environmental or one of the sample types you defined.
   - The default import folder is defined using the Import and Export Options. Refer to the section in this manual on import and export options.

5. Click the **Import** button. If only one import file is present in the import folder, it will automatically import. If multiple files or no files are present, the *Open* window appears. Navigate to the file you want to import and double click the file name.
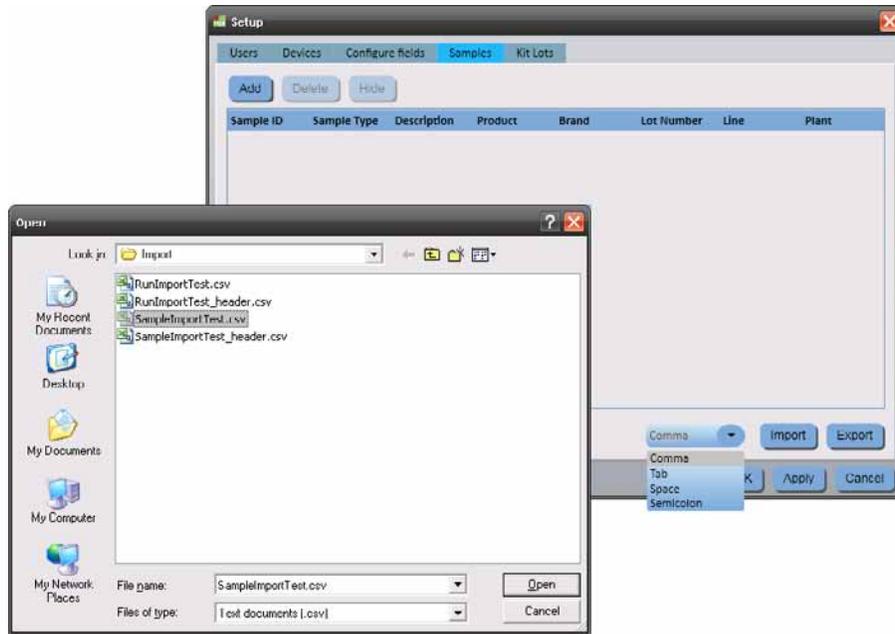
6. After a successful import, the *Samples* tab displays the sample definitions that were imported. The 3M Molecular Detection Software creates new rows at the end of the Sample ID list and adds the contents of the import file to the new rows.

7. Save the Sample definitions by clicking the **OK** button or the **Apply** button.
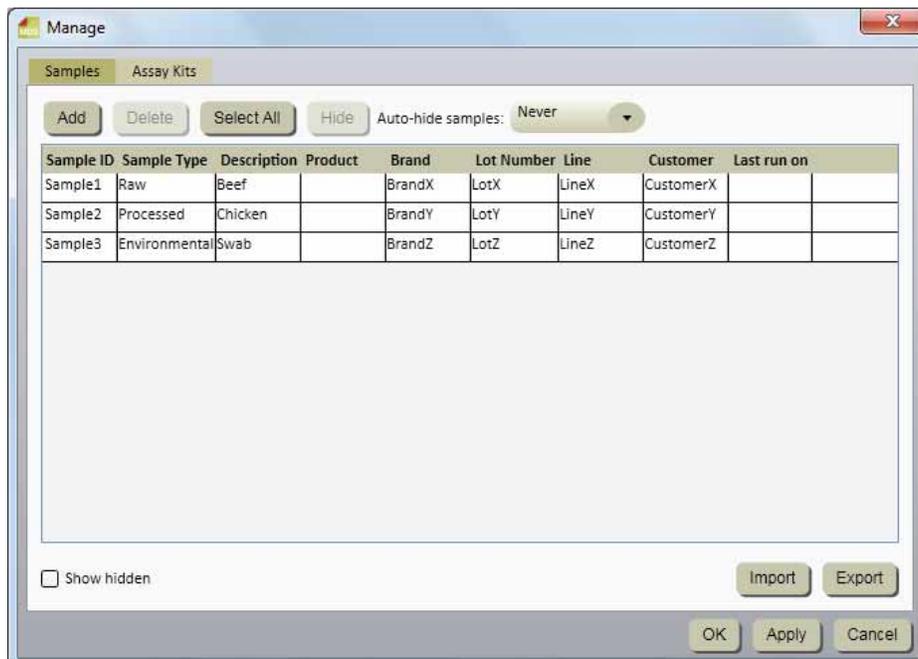
Samples Window after Successful Data Import

Exporting samples

1. You can export Sample IDs and their corresponding values for the custom fields in the form of delimited data files, e.g., Comma Separated Values (.CSV) files. Use this feature if the Sample IDs can be imported to a LIMS or to another system from the 3M Molecular Detection System.
2. Click **Manage** on the menu bar, and then select **Samples….** You can also select **Manage Samples** on the Sidebar, or select the **Samples** tab if the *Setup* window is already open. You can also import Sample definitions. Refer to the section in this manual on importing samples for more information.

3. The *Setup* window displays a list of the current Sample IDs on the Samples tab, along with the custom field values for each Sample ID.
4. Click the **Export** button. When the Save as window appears, navigate to the folder into which you want to export the file. The default export folder is defined using the Import and Export Options. Refer to the section in this manual on import and export options.
5. Click the **Save** button.

Assay Kits
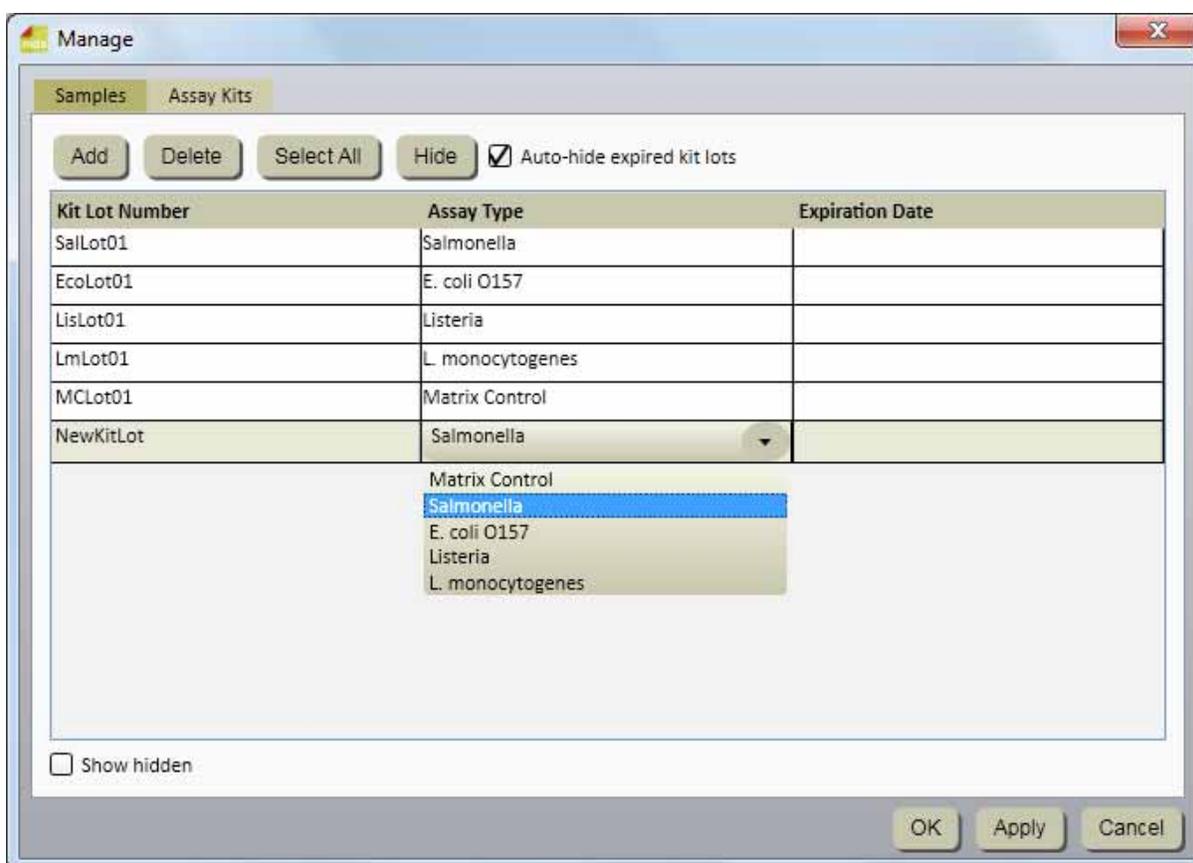
Assay Kits Window

Adding Assay Kits

1. Click **Manage** on the menu bar, and then select **Assay Kits….** You can also use the sidebar or click the Assay Kits tab on the already open **Manage** window.
2. The Assay Kits tab displays a current list of assay kits on the in the sequence in which they were added.
3. Click the **[Add]** button to add a new assay kit.
4. Enter the kit lot number in the Kit Lot Number field. This field is required and each kit lot number must be unique. Lot numbers are the 3M manufacturing lot identification numbers printed on the 3M Molecular Detection Assay kits. You can use the combination of the Assay Kit and the Sample to track samples through the work flow from receiving the sample in the lab to adding the sample to a test run and viewing the final test results.

5. Use the Assay Type drop-down menu to select the type of assay. This field is required. Select one of the four pathogen targets or the Matrix Control as indicated on the kit label:

- Matrix Control
- *Salmonella*
- *E. coli* O157
- *Listeria*
- *Listeria monocytogenes*

6. Enter the expiration date for the new assay kit in the Expiration Date field. You can type the date in YYYY-MM-DD format, or use the date picker to select a date. This field is not required.
7. Click the **[Apply]** button to apply the addition, or click the **[OK]** button to apply the addition and return to the *Start Page* window.

Deleting Assay Kits

1. Click **Manage** on the menu bar, and then select **Assay Kits….** You can also use the sidebar or click the Assay Kit tab on the already open **Manage** window.
2. The Assay Kits tab displays a current list of assay kits on the in the sequence in which they were added.
3. Click the Kit Lot Number you want to delete from the list. You cannot delete a kit lot number that is active, or that has been used for at least one run in the past.
4. Click the **[Delete]** button.
5. Click the **[Apply]** button to apply the deletion, or click the **[OK]** button to apply the deletion and return to the *Start Page* window.

Hiding Assay Kits

1. You should hide assay kits that are no longer used by the 3M Molecular Detection Software. Hiding an Assay Kit number removes the Assay Kit number from the Assay Kit number list while leaving the kit lot in the database. This allows management of active kit lot numbers while maintaining the integrity of historical data.
2. Click **Manage** on the menu bar, and then select **Assay Kits….**
3. The Assay Kits tab displays a current list of assay kits on the in the sequence in which they were added.
4. Click the Kit Lot Number you want to hide.
5. Click the **[Hide]** button to hide the Assay Kit Number.
6. Click the **[Apply]** button to apply the change, or click the **[OK]** button to apply the change and return to the *Start Page* window.
7. You can automatically hide kits that are expired by selecting Auto-hide expired lots. Expired kits are automatically hidden on application restart or midnight on the date of kit expiration, whichever comes first.
8. Hidden Assay Kits can be displayed by selecting the "Show hidden" checkbox.

Performing Runs

Setting up a new run

1. Launch the 3M Molecular Detection Software using the ![mds] icon located on the Desktop.
2. Enter your User Name and Password to log in.
3. To setup a new run, select **File** on the menu bar, and then select **New Run**. You can also click **Setup New Run** next to the Setup New Run ![icon] icon on the Start page, or you can click **Setup New Run** next to the Setup New Run ![icon] icon on the Sidebar to start a new run.
4. You can define runs using a variety of methods, including a grid view, a list view, or via data import. These methods are defined in the following subsections. Refer to the section in this manual on Importing runs for more information on importing runs.
5. The 3M Molecular Detection Software automatically assigns a Run ID based on the template selected for Run IDs during the software installation process. You can modify the Run ID by clicking in the **Run ID** field and updating the automatically assigned Run ID. The Run ID must be unique.
6. Use the Technician dropdown menu to select the user who defines the new run. The user who is currently logged in is the default Technician.
7. You can click in the **Comment** field and enter an optional run comment.
8. Use the grid in the *Setup (Grid)* view to select the wells for the new run using any or all of these methods:
   - Select a single well in the 96-well grid display by clicking on a single well.
   - Select multiple non-adjacent wells by pressing and holding **[Ctrl]** while clicking on multiple wells.
   - Select a series of wells, in columns, by clicking on the first well and pressing and holding **[Shift]** while clicking on the last well.
   - Select multiple adjacent wells using click and drag over multiple wells.
   - Simply do not select a well that will not be used for the run.

The 3M Molecular Detection Software highlights the wells you select with a blue border.

9. Select the **Assay Type** for the highlighted wells by clicking the appropriate colored dropdown menu located above the grid. Select the Well Type for the highlighted wells by selecting the appropriate **Well Type** from the dropdown menu. These are all the possible combinations of Assay Type and Well Type:

	Well Type		
	Sample	Reagent Control	Negative Control
Assay Type			
Salmonella	![SAL]	![RC SAL]	![NC SAL]
E. coli O157 (Including H7)	![ECO]	![RC ECO]	![NC ECO]
Listeria	![LIS]	![RC LIS]	![NC LIS]
L. monocytogenes	![LM]	![RC LM]	![NC LM]
Matrix Control		![MC]	
Incomplete Specification	![SAL !]		

You can also right-click a cell or group of cells to select the Assay type and Well Type using the context-sensitive menu.
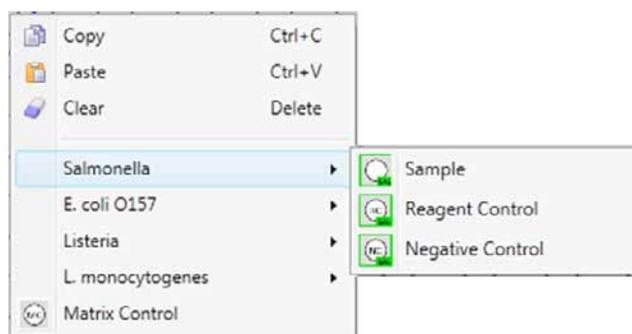
10. Repeat step 8 and step 9 until you have defined all the assay types and well types for the run. The screenshot below is an example of a completed new run definition. The new Run ID appears as the tab title, and the asterisk (*) indicates the run definition has been changed since it was last saved.

11. Enter the **Kit Lot Number** in the Well Details pane. The **Well ID** field on the Well Details pane indicates which well(s) are selected and will receive the Kit Lot Number you enter.
   - Enter the lot number into the **Kit Lot Number** field (white), then click [icon] or press **[Enter]** to save the entry.
   - To select a preconfigured Kit Lot Number, click [icon] to switch to the drop-down list (blue), then select an ID from the list. You cannot enter new values when this field is blue.

12. Enter the **Sample ID** in the Well Details pane.
   - Enter the Sample ID into the **Sample ID** field (white) and click [icon] or press **[Enter]** to save the entry.
   - To select a preconfigured Sample ID, click [icon] to switch to the drop-down list (blue), then select an ID from the list. You cannot enter new values when this field is blue.

   Note: A Sample ID cannot be assigned to Reagent Controls and Negative Controls.

13. If you are using a Matrix Control, link the sample to the Matrix Control by assigning the same Sample ID to both the sample and the Matrix Control. This association causes the sample result to be dependent on the Matrix Control result. You can also link a single MC to multiple sample wells; however, all wells must have the same Sample ID. Individual wells do have different codes (e.g., A1, A2) that can be used to track the samples. To further differentiate the wells, enter a comment for each. The comment is shown in the Run Report and results export file. Refer to section in this manual on viewing run results.

14. Select the **Retest** option in the Well Details pane if the well contains a retest of a previous sample. Click the add ⊕ icon to select the run and the well that is being retested.
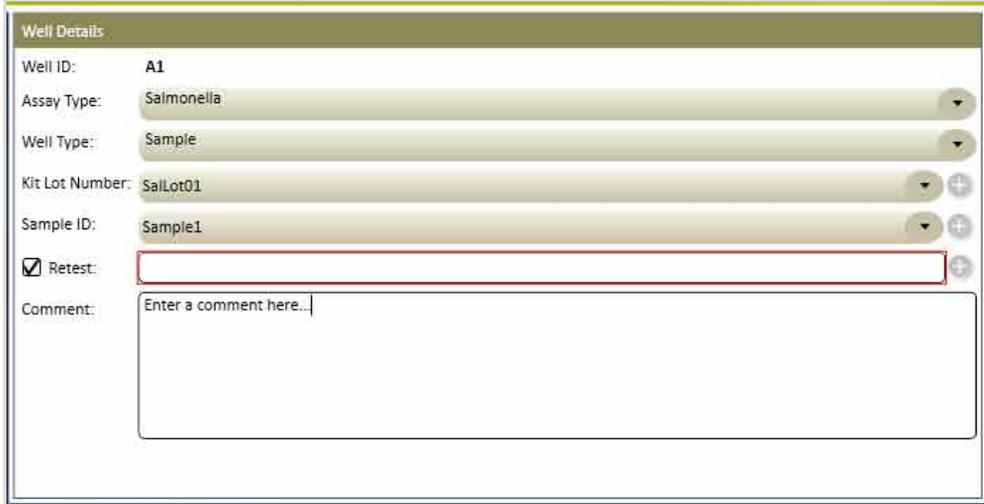
15. Select the run and well that is being retested when the *Retest* window appears.
16. Click the **OK** button.
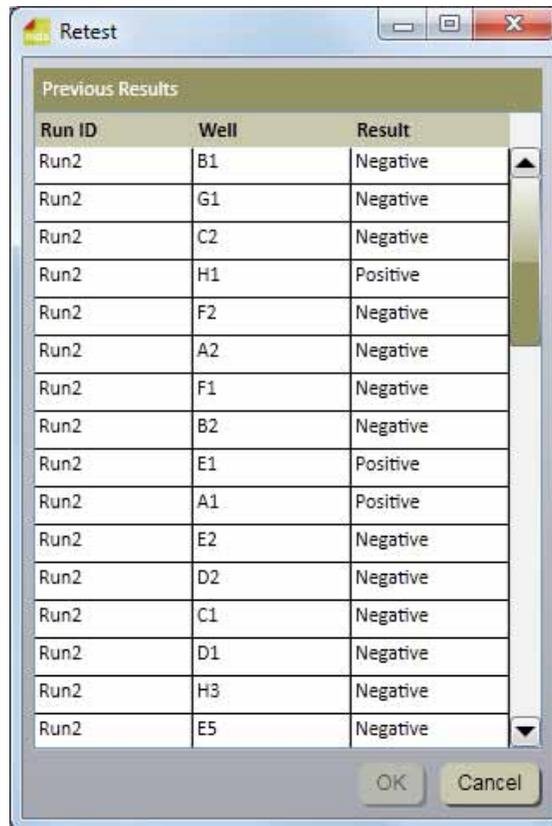
17. You can also use the *Well Details* pane to enter a comment into the **Comment:** field that is relevant to the well definition.
18. You can display the well details by hovering the cursor over a well in the *Setup (Grid)* pane. All well detail information with the exception of Retest is shown.

Well ID: A1
Assay Type: Salmonella
Well Type: Sample
Kit Lot: SalLot01
Sample ID: Sample1
Comment: Enter a comment here...

19. Repeat Steps 11 and 12 to enter the Kit Lot Number and the Sample ID for the remaining wells. Leave any unused wells blank (gray circles).
20. The large icons below the *Setup (Grid)* pane provide quick access to functions commonly used during the run definition process.

	Active	**Inactive**
Clear		
Save		
Print		
Run		

21. You can also use the *Setup(List)* tab to view and define a new run using only text displayed in a table instead of symbols and text displayed in a graphic image of a 96 well grid.
22. Click the *Setup(List)* tab at the bottom of the new run tab to display the list view. The list view displays all well details in a table sorted by well location. All information associated with each well appears in the table. This is the same information available in the *Setup (Grid)* tab.
23. Select the **Show Kit lot and Sample details** option to display the custom fields associated with Samples and Kit Lots.
24. You can enter well definitions by clicking in the fields and entering the information or by clicking the dropdown menus and selecting the option.

25. You can import or export the information in a new run by clicking the Import button or Export button. Refer to the section in this manual on Importing runs and on Exporting runs for more information.

26. When finished entering all sample information, click **Save** to save the new run. You can also save the run by selecting File on the menu bar, then selecting **Save Run** or by using the keyboard to press <CTRL>+s.

Starting a run

1. Follow the instructions in the assay kit Product Instructions to perform the assay.
   Do not place the sample reagent tubes into the speed loader tray until you have completed the lysis step. **Samples that have not been properly heat treated during the assay lysis step may be considered a potential biohazard and should NOT be inserted into the 3M Molecular Detection Instrument.** Confirm that the Heat Block you used in the lysis step achieved the recommended temperature for the recommended length of time by the use of a timer, and a calibrated thermometer inserted into the designated well in the corner of the Heat Block during the lysis step.

2. To start a configured run, select File on the menu bar, and then select **Open Runs.** You can also click **Start Configured Runs** next to the Start Configured Runs ▶ icon on the Start page, or on the Sidebar.

3. When the list of configured runs appears, select the configured run you want to start.

4. The 3M Molecular Detection Software displays the selected run on a new tab, which contains a Setup (Grid) tab and a Setup (List) tab.

5. You can make changes to the run. Click the **Save** button to save any changes you make. You can also Click File on the menu bar, then select **Save Run** to save any changes.

6. Click the **Start** button in the Setup (Grid) view.

7. Select the device from the dropdown list. The instruments in this dropdown list are those in the Ready state, and capable of performing a test run. After selecting the device, click the **OK** button.
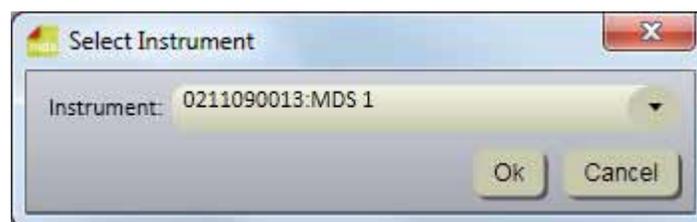
Select Instrument Dialog

8. The selected instrument's lid automatically opens

9. Insert the 3M Speed Loader Tray into the instrument, and close the instrument's lid to start the run.

10. The header on the Run Details section in the Results (Grid) view displays details for the run, a progress bar, and the remaining time for the run. The run duration is 75 minutes.

11. You can click the **[Abort]** 🛑 button to stop any run in progress. Click **[Yes]** when the confirmation dialog appears to abort the run.

Importing a new run

1. To setup a new run, select File on the menu bar, and then select **New Run.** You can also click **Setup New Run** next to the Setup New Run 📅 icon on the Start page, or you can click **Setup New Run** next to the Setup New Run 📅 icon on the Sidebar to start a new run.

2. Select the Setup(List) pane of the New Plate window.

3. You can import a new run in the form of a delimited data file, e.g., Comma Separated Values (.CSV) file. Use this feature if the information required to define a new run can be exported from a LIMS or from another system into the 3M Molecular Detection System. Any new sample definitions or kit lot definitions also contained in the same new run import file are also imported along with the new run.

4. Click the dropdown menu next to the Import button to select the delimiter character in the import or export file. The delimiter character can be a comma, tab, space, or semicolon. The delimiter used in the import file is predefined by the LIMS or other system from which it originated.
   - Import files are often referred to as .CSV or comma separated values files.

- The data in a sample import file that's intended to be imported into a list field must match one of the selections for the list field. For example, a sample type must be Raw, Processed, or Environmental or one of the sample types you defined.

5. Click the **Import** button. When the *Open* window appears, navigate to the import file you want to import and double click the file name.

Assay Type	Assay Code
Salmonella	SAL
E. coli O157	ECO
Listeria	LIS
Listeria monocytogenes	LM
Matrix Control	MC

Well Type	Well Code
Sample	Sample
Reagent Control	RC
Negative Control	NC
Matrix Control	MC

Exporting a run definition

1. Select the *Setup (List)* tab of the New Run window.
2. You can export a run definition in the form of a delimited data file, e.g., Comma Separated Values (.CSV) file. Use this feature if you want to export the information for run definition to a LIMS or another system or if you want to export a run definition, edit the run definition, and then import the edited run definition.
3. The default file type is a .CSV file. You can select other file types and delimiters in the Import and Export Options. Select the delimiter that is preferred by the LIMS or other system to which the file is exported.. Refer to the section in this manual on import/export file formats.
   - By default, the first row is a header row that contains field names. You can change this in the Import and Export Options. Refer to the section in this manual on import and export options
   - Two consecutive delimiters with nothing between them indicate a blank field.
4. The default export folder is defined using the Import and Export Options. Refer to the section in this manual on import and export options.
5. Click the **Export** button. When the *Save* as window appears, navigate to the folder into which you want to export the file. The default export folder is defined using the Import and Export Options. Refer to the section in this manual on import and export options.
6. Click the **Save** button..

Displaying a run by assay type

The Assay Type pane appears along with the *Setup (Grid)* pane and the *Well Details* pane while you define a run, and it provides a list of all wells defined within this run definition for a selected assay type. In the example, the wells defined for the *Salmonella* assay are displayed, and indicated by the light blue box around the "SAL" selector.

Assay Type	Symbol
Salmonella	SAL
E. coli O157	ECO
Listeria	LIS
Listeria monocytogenes	LM
Matrix Control	MC

Setup (Grid) Assay Type Pane

Saving a run as a template

1. Create a run template by setting up a run structure using the *Setup(Grid)* or *Setup(List)* panes without setting up the details in the *Well Details* pane. When you later use the run template to set up a new run from a template, the structure of the new run is defined by the run template so you do not have to define the run structure. You only have to define the Samples, Kit Lots, Comments and Retest information. Refer to the section in this manual on Setting up a new run from a template for more information.
2. To save the run as a template, select **File** on the menu bar, and then select **Save Run as Template…**
3. When the *Save* as window appears, navigate to the folder into which you want to save the run template file, and enter the file name for the run template in the **File name:** field.
4. Click the **Save** button. The 3M Molecular Detection Software saves the run template as a Comma Separated Values (.CSV) text file.

Setting up a new run from a template

1. Set up a new run from a template by using a run template to set up the run structure without using the *Setup (Grid)* or **Setup (List)** panes, and by using the *Well Details* pane to set up the details (Samples, Kit Lots, Comments and Retest) for the new run. Refer to the section in this manual on Saving a run as a template for more information.
2. To setup a new run from a template, select **File** on the menu bar, and then select **Load Run Template….**
3. When the *Open* window appears, navigate to the folder that contains the run template file you want to use. The default folder is Templates.
4. Select the run template file you want to use and Click the **Open** button.
5. Use the *Well Details* pane to set up the details (Samples, Kit Lots, Comments and Retest) for the new run. Refer to the section in this manual on Setting up a new run for more information on using the *Well Details* pane.
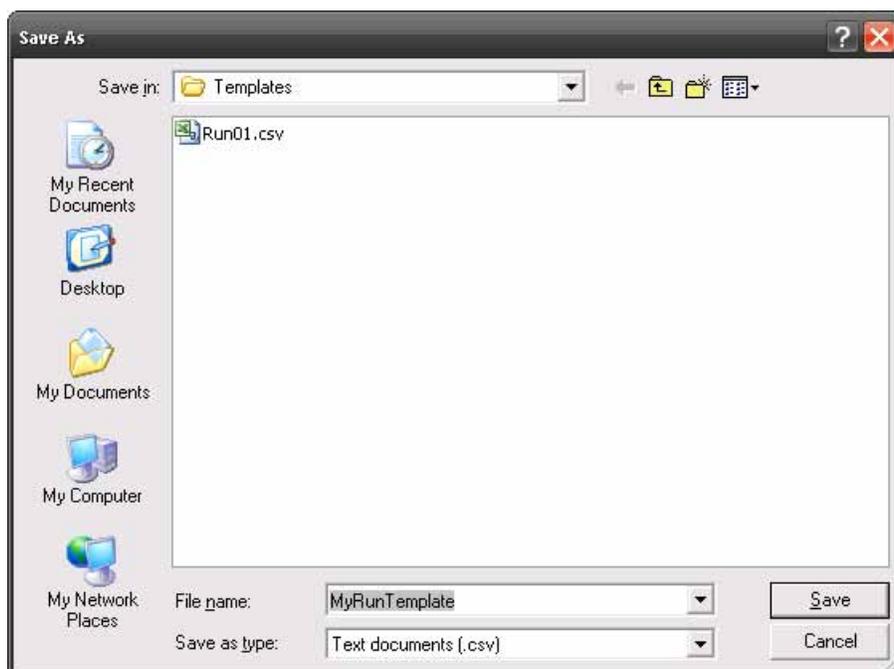
Save Template Dialog
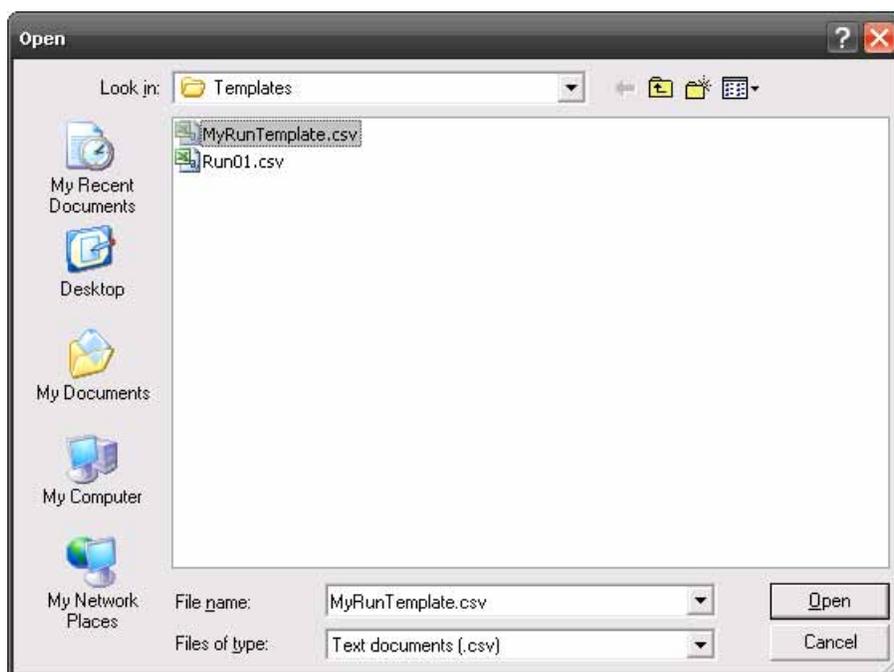
Load Template Dialog

When a Run is created (loaded) based on a Template, all defined wells will be marked as incompletely defined. An example of a Run created from a Template is provided in **Error! Reference source not found..** The user must complete the well definitions by providing the missing information (Kit Lot and Sample) before the Run can be saved or executed.
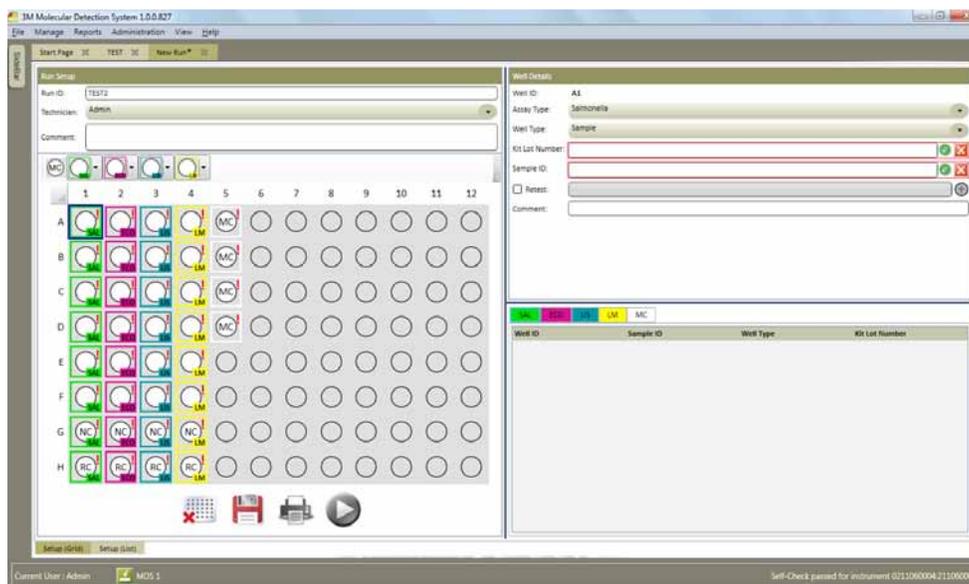
Run Created From Template

Viewing run results

1. You can use the Results-Grid view to monitor a run in progress. Results are displayed in real-time.
2. To view run results from previous runs, select **File** on the menu bar, and then select **Open Runs**. You can also click **View Run Results** icon on the Start page, or on the Sidebar to view the results of the last five completed runs.
3. If you cannot find the run your want do view, you can use **Run filters** to set the plate filter parameters. All of the filter parameters are optional.
4. Select the **All Dates** option to include runs created on any date, or select the **Date Range** option to include runs created within a range of dates. If you select the **Date Range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.
5. Click the dropdown menu for the **Technician** field to select a specific user who created the runs to be included. The default option is the current user.
6. Click the dropdown menu for the **Run Status** to select a specific plate state to be included. The default option is **All**.

Run Status	Description
All	All runs in the database
Completed	Runs that are completed
Completed (successful)	Runs that are successfully completed without Invalid, Inhibited, Inspect, or Error results
Completed (requires examination)	Runs that are completed with at least one Invalid, Inhibited, Inspect, or Error result
Configured	Runs that are configured but not yet started
Abort	Runs that are aborted by a user
Failed	Runs that are failed due to errors such as instrument disconnection, etc.

7. Click the **Apply Filter** button after selecting the filters you want to use.
8. When the list of runs appears, click the run you want to view, and then click OK.
9. The software displays the selected run on a new tab.
10. Select the **Results** (Grid) to display the results for each well. A table of result symbols is shown below. A graph of RLU readings over time also appears if this option is enabled. Refer to the Administrative Options section in this manual for more information on enabling the graph.

Well Type	Well Result Symbol	Result	Interpretation
Sample	➕	Positive	The sample is presumptive positive for the target pathogen.
Sample	➖	Negative	The sample is negative for the target pathogen.
Sample	⊘	Inhibited	The sample matrix was inhibitory to the assay. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Sample	?	Inspect	The presence or absence of the target pathogen was indeterminate. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Sample	⊘	Error	No bioluminescence was detected. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Reagent Control	RC	Valid	The Reagent Control was valid.
Reagent Control	RC⊘	Invalid	The Reagent Control was invalid. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Reagent Control	?	Inspect	The Reagent Control was indeterminate. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Reagent Control	RC⊘	Error	No bioluminescence was detected. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Negative Control	NC	Valid	The Negative Control was valid.
Negative Control	NC⊘	Invalid	The Negative Control was invalid. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Negative Control	?	Inspect	The Negative Control was indeterminate. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Negative Control	NC⊘	Error	No bioluminescence was detected. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Matrix Control	MC	Valid	The Matrix Control was valid.
Matrix Control	MC⊘	Inhibited	The sample matrix was inhibitory to the Matrix Control. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.
Matrix Control	MC⊘	Error	No bioluminescence was detected. A re-test may be required. Refer to the troubleshooting section and the assay kit Product Instructions for more information.

11. You can choose to select and display the graph for any or all of the wells.

    a. Right-click or Ctrl-click an individual well to select and display the graph for that well. The background color of the selected well changes from gray to light blue to indicate the well is selected, and the curve for the selected well appears on the graph.

    b. Right-click a selected well to de-select it and remove the graph for that well.

    c. Right-click additional wells to select and display the graphs for the additional wells. The display is cumulative. The curves for all selected wells appear on the graph.

    d. Hold Ctrl and left-click and drag over a group of wells to select and display the graphs for multiple wells. The curves for all selected wells appear on the graph.

12. You can left-click a selected well, or left-click and drag over a group of wells, to highlight the curve(s) for that well(s). You can also left-click a curve to highlight the corresponding well.

13. You can customize the appearance of the graph as follows:

• Click the **Select all** button display the curves for all defined wells.

• Click the **Clear** button to reset well selections and display no curves.

• Click the **Zoom in** button to enlarge the graph by one level. This can also be performed by hovering over the graph and using the mouse wheel.

• Click the **Zoom out** button to shrink the graph by one level.

• Use the Mouse Wheel while hovering the cursor over the graph to zoom in or zoom out on the graph.

• Click the **Fit to view** button to perform a best fit for the selected plots.

14. The colors of the wells indicate which curves are displayed on the graph, as shown below.

Well Area	Color	Interpretation
Well Background	Gray	The curve for this well is not shown on the graph
	Blue	The curve for this well is shown on the graph
Well Border	No border	The well is not selected
	Blue border	The well is selected and its curve is highlighted
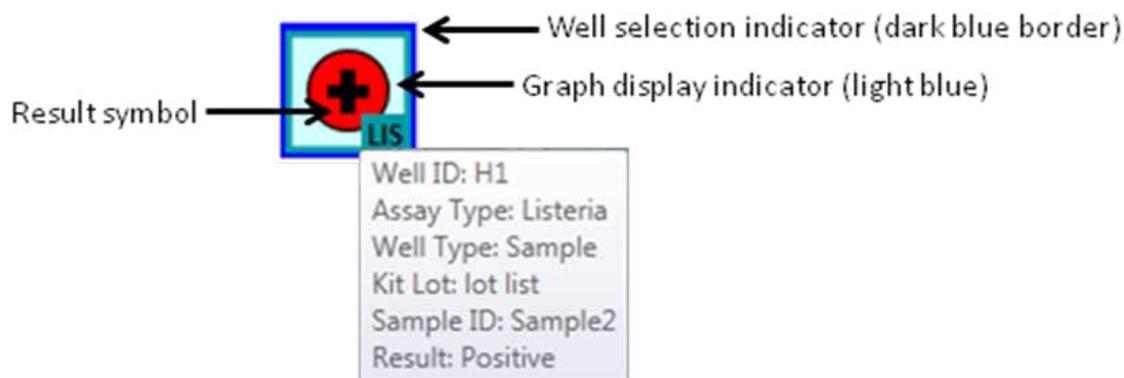
15. You can select the Results (List) to display the same data as the Results (Grid) but in a list form. The following fields are shown:
    - Well ID – The well ID that correlates to the well's location on the 96-well grid.
    - Sample ID – The identifier of the sample used in this test. The Results (Grid) view shows this information by hovering the mouse over the well.
    - Assay Type – The type of assay used. The Results (Grid) view shows this information as a color-coded box around the well.
    - Well Type – Either Sample, Reagent Control, Negative Control or Matrix Control.
    - Kit Lot Number – The identifier of the kit lot used in this test. The Results (Grid) view shows this information by hovering the mouse over the well.
    - Result – The result of the test.

Exporting run results

1. Select the **Results** (Grid), and then click the Export button.
2. You can export results in the form of a delimited data file, e.g., Comma Separated Values (.CSV) file. Use this feature if you want to export the information for run definition to a LIMS or another system or if you want to export a run definition, edit the run definition, and then import the edited run definition.
3. The default file type is a .CSV file. You can select other file types and delimiters in the Import and Export Options. Select the delimiter that is preferred by the LIMS or other system to which the file is exported. Refer to the section in this manual on import/export file formats.
    - By default, the first row is a header row that contains field names. You can change this in the Import and Export Options. Refer to the section in this manual on import and export options
    - Two consecutive delimiters with nothing between them indicate a blank field.
4. The default export folder is defined using the Import and Export Options. Refer to the section in this manual on import and export options.
5. Click the **Export** button. When the *Save as* window appears, navigate to the folder into which you want to export the file. The default export folder is defined using the Import and Export Options. Refer to the section in this manual on import and export options.
6. Click the **Save** button.

Generating run reports

Run Layout Report

1. Use this report to assist with assay set up.
2. Select the *Setup (Grid)* view to print or save the Run Layout, which shows the setup definitions for all wells in the run.
3. Click the print button 🖶 to open the print preview in the report viewer.
4. A loading indicator [⟳ Loading...] appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.
5. Click the Print button 🖨 at the top of the window to print the report.
1. To save the Run Layout, click the **[Export]** button 💾▾ then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows Save As dialog opens, select a folder in which to store the file and click the **[Save]** button.

Run Report

1. Select the *Results (Grid)* view to print or save the Run report, which lists the test results for all wells in the run.
2. Click the **[Run Report]** button 🗐 to open the print preview in the report viewer.
3. A loading indicator [⟳ Loading...] appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.
4. Click the Print button 🖨 at the top of the window to print the report.
5. To save the Run Report, click the **[Export]** button 💾▾ then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows Save As dialog opens, select a folder in which to store the file and click the **[Save]** button.

Instrument Temperature Log

1. Select the *Results (Grid)* view to print or save the Instrument Temperature Log, which lists the core and lid heater temperatures measured at 15 second intervals during the run.
2. Click the **[Temperature Log]** button 🌡 to open the print preview in the report viewer.
3. A loading indicator [⟳ Loading...] appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.
4. Click the Print button 🖨 at the top of the window to print the report.
5. To save the Temperature Log report, click the **[Export]** button 💾▾ then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows *Save As* dialog opens, select a folder in which to store the file and click the **[Save]** button.

Opening a saved run

1. Only configured runs can be modified. To modify any of the information stored for a configured run, select **File** on the menu bar, and then select **Open Runs**. You can also click **Start Configured Runs** next to the Start Configured Runs

    ▶ icon on the Start page, and then click **Open Runs...**

2. If you cannot find the run your want do delete, you can use **Run filters** to set the plate filter parameters. All of the filter parameters are optional.

    a. Select the **All dates** option to include runs created on any date, or select the **Date range** option to include runs created within a range of dates. If you select the **Date range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.

    b. Click the dropdown menu for the **Technician** field to select a specific user who created the runs to be included. The default option is the current user.

    c. Click the dropdown menu for the **Run Status** to select a specific plate state to be included. The default option is **All**.

Run Status	Description
All	All runs in the database
Completed	Runs that are completed
Completed (successful)	Runs that are successfully completed without Invalid, Inhibited, Inspect, or Error results
Completed (requires examination)	Runs that are completed with at least one Invalid, Inhibited, Inspect, or Error result
Configured	Runs that are configured but not yet started
Abort	Runs that are aborted by a user
Failed	Runs that are failed due to errors such as instrument disconnection, etc.

3. Click the **[Apply Filter]** button after selecting the filters you want to use.
4. The 3M Molecular Detection Software displays a list of the runs that match the filter parameters you selected.
5. Select a run from the list and click the **[OK]** button to view or edit the run.

Deleting a run

1. Deleting a run is permanent and after deleting a run, the data cannot be recovered. Consider exporting the run reports before deleting a run.
2. To delete a run, select **File** on the menu bar, and then select **Open Runs.**
3. When the *Open runs* window appears, select the run you want to delete. The 3M Molecular Detection Software highlights the selected run.
4. If you cannot find the run your want do delete, you can use **Run filters** to set the plate filter parameters. All of the filter parameters are optional.

    a. Select the **All dates** option to include runs created on any date, or select the **Date range** option to include runs created within a range of dates. If you select the **Date range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.

    b. Click the dropdown menu for the **Technician** field to select a specific user who created the runs to be included. The default option is the current user.

    c. Click the dropdown menu for the **Run Status** to select a specific plate state to be included. The default option is **All.**

Run Status	Description
All	All runs in the database
Completed	Runs that are completed
Completed (successful)	Runs that are successfully completed without Invalid, Inhibited, Inspect, or Error results
Completed (requires examination)	Runs that are completed with at least one Invalid, Inhibited, Inspect, or Error result
Configured	Runs that are configured but not yet started
Abort	Runs that are aborted by a user
Failed	Runs that are failed due to errors such as instrument disconnection, etc.

5. Click the **Apply Filter** button after selecting the filters you want to use.
6. The 3M Molecular Detection Software displays a list of the runs that match the filter parameters you selected.
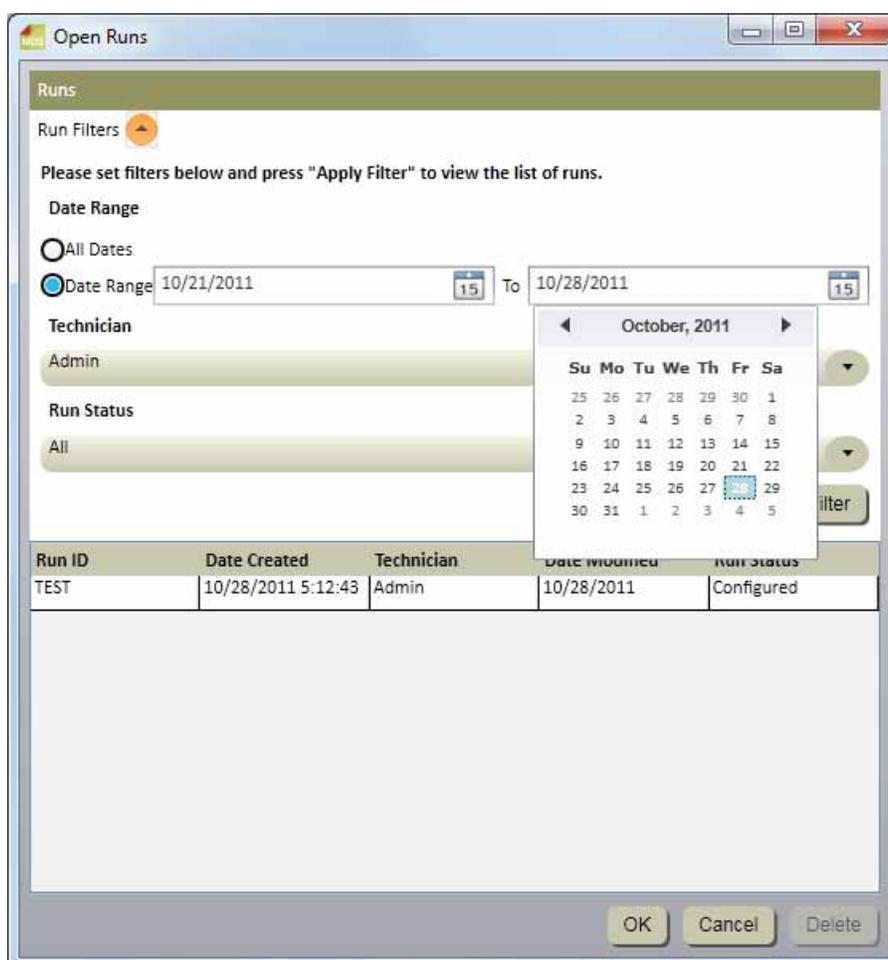7. Select a run from the list and click the **Delete** button.
8. In the pop-up box that asks "Are you sure you want to permanently delete this run?", Click Yes to permanently delete the run from the database.

Open Runs Window

Generating Management Reports

Generating a Search Results report

1. This report allows you to query the database for specific results from completed runs.
2. To generate a Search Results report, select **Reports** on the menu bar, and then select **Search Results…** You can also click **Generate Reports** next to the Generate Reports icon on the Start page, or your can click Generate Reports next to the Generate Reports icon on the Sidebar to generate a Search Results report.
3. When the *Search Results* report window appears, select the date range to include and select the filter parameters you want to use and the values for the filter parameters you selected.
    a. Select the **All dates** option to include test results done on any date, or select the **Date range** option to include test results done within a range of dates. If you select the **Date range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.
    b. All of the filter parameters on the *Search Results report* window are optional.

    i. For Assay Type, Well Type and Result Parameters, check the box associated with the values you want to include in the report.

    ii. For List type parameters, click the dropdown menu and select the value you want include in the report.

    iii. For Text type parameters, click in the field to enter the value you want to include in the report. You can enter the entire text or a keyword for a Text type parameter. You cannot use wild cards.

Filter Parameter	Description	Default	Type
User	User who performed the run	All users included	List
Assay Type	Type of 3M Molecular Detection Assay used	All assay types included	Checkbox
Well Type	Sample, Reagent Control, Negative Control or Matrix Control	All Well types included	Checkbox
Kit Lot	Lot Number for the assay kit used	All kit lots included	Text
Result	Reported result of the test.	All results included	Checkbox
Run ID	ID assigned to the run when it was set up	All runs included	List
Retested	Select this option to include retests only.	All tests included	Check box
Instrument	Serial number of the instrument on which the run was performed (connected and not connected instruments are listed).	All instruments included	List
Sample ID	Sample ID as defined in the *Samples* tab of the *Setup* window.	All sample IDs included	Text
Sample Type *	Optional field.	All sample types included	List
Description *	Optional field.	All descriptions included	Text
Product *	Optional field.	All products included	Text
Brand *	Optional field.	All brands included	Text

Lot Number *	Optional field.	All lot numbers included	Text
Line *	Optional field.	All lines included	Text
Customer *	Optional field.	All plants included	Text

* These fields are customizable during software installation. This table shows the default field names and. If these fields were customized during installation both the field names and the field types in the *Search Results* window could be different. Hidden fields are not shown in the *Search Results* window.

1. Click the **[Generate]** button after selecting and entering the filters you want to use. You can also click the **[Cancel]** button to return to the *Start Page* without generating a report. This query must scan a large amount of data, and it could return a large number of results. Generating this report could take significant time and produce a large amount of information.

2. A loading indicator ![Loading...] appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.

3. Click the **[Print]** button at the top of the window to print the report.

4. To save the Search Results report, click the **[Export]** button then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows *Save As* dialog opens, select a folder in which to store the file and click the **[Save]** button.

Generating a Samples report

1. To generate a Samples report, select **Reports** on the menu bar, and then select **Samples…** You can also click Generate Reports next to the Generate Reports icon on the Start page, or you can click **Generate Reports** next to the Generate Reports icon on the Sidebar to generate a samples report.

2. When the *Samples Report* window appears, select the date range to include and select the filter parameters you want to use and the values for the filter parameters you selected.

   a. Select the **All dates** option to include test results done on any date, or select the **Date range** option to include test results done within a range of dates. If you select the **Date range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.

   b. All of the filter parameters on the *Samples report* window are optional.

      i. For List type parameters, click the dropdown menu and select the value you want include in the test results report.

      ii. For Text type parameters, click in the field to enter the value you want to include in the test results report. You can enter the entire text or a keyword for a Text type parameter. You cannot use wild cards.

Filter Parameter	Description	Default	Type
User	User who did the test.	All users included	List
Sample ID	Sample ID as defined in the *Samples* tab of the *Setup* window.	All sample IDs included	Text
Sample Type *	Optional field	All sample types included	List
Description *	Optional field	All descriptions included	Text
Product *	Optional field	All products included	Text
Brand *	Optional field	All brands included	Text
Lot Number *	Optional field	All lot numbers included	Text
Line *	Optional field	All lines included	Text
Customer *	Optional field	All plants included	Text

* These fields are customizable during software installation. This table shows the default field names and. If these fields were customized during installation both the field names and the field types in the *Search Report* window could be different. Hidden fields are not shown in the *Search Report* window.

1. Click the **[Generate]** button after selecting and entering the filters you want to use. You can also click the **[Cancel]** button to return to the Start Page without generating a report. This query must scan a large amount of data, and it could return a large number of results. Generating this report could take significant time and produce a large amount of information.

2. A loading indicator ![Loading...] appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.

3. Click the **[Print]** button ![print] at the top of the window to print the report.

4. To save the Samples report, click the **[Export]** button ![export] then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows *Save As* dialog opens, select a folder in which to store the file and click the **[Save]** button.

Generating an Assay Kits report

1. To generate an Assay (Kit) Lot report, select **Reports** on the menu bar, and then select **Assay Kits…** You can also click **Generate Reports** next to the Generate Reports ![icon] icon on the Start page, or your can click **Generate Reports** next to the Generate Reports ![icon] icon on the Sidebar to generate an Assay Kits report.

2. Select **Assay Kits…** from the list of reports that appears.

3. When the *Assay Kits report* window appears, select the date range to include and select the filter parameters you want to use and the values for the filter parameters you selected.

   a. Select the **All dates** option to include test results done on any date, or select the **Date range** option to include test results done within a range of dates. If you select the **Date range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.

   b. The filter parameters on the *Assay Kits report* window are both optional. Click the dropdown menu and select the value you want include in the Assay Kits eport. The defaults are all users and all assay types.

Filter Parameter	Description	Default	Type
User	User who did the test.	All users included	List
Assay Type	Target pathogen or assay type.	All assay types included	List

1. Click the **[Generate]** button after selecting and entering the filters you want to use. You can also click the **[Cancel]** button to return to the *Start Page* without generating a report. This query must scan a large amount of data, and it could return a large number of results. Generating this report could take significant time and produce a large amount of information.

2. A loading indicator [Loading...] appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.

3. Click the **[Print]** button at the top of the window to print the report.

4. To save the Assay Kits report, click the **[Export]** button then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows *Save As* dialog opens, select a folder in which to store the file and click the **[Save]** button.

Generating a Completed Runs report

1. To generate a Completed Runs report, which lists all runs that have completed the entire 75 minute test cycle without being aborted by the user or stopped because of an error, select **Reports** on the menu bar, and then select **Completed Runs…** You can also click **Generate Reports** next to the Generate Reports icon on the Start page, or your can click **Generate Reports** next to the Generate Reports icon on the Sidebar to generate a Complete Runs report.

2. Select **Completed Runs…** from the list of reports that appears.

3. When the *Completed Runs report* window appears, select the date range to include and select the filter parameters you want to use and the values for the filter parameters you selected.

   a. Select the **All dates** option to include test results done on any date, or select the **Date range** option to include test results done within a range of dates. If you select the **Date rang**e option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.

   b. The filter parameters on the *Completed Runs report* window are both optional. Click the dropdown menu and select the value you want include in the Completed Runs report. The defaults are all users and all instruments.

Filter Parameter	Description	Default	Type
User	User who did the test	All users included	List
Instrument	Serial number of the instrument on which the test was done (connected and not connected instruments are listed)	All instruments included	List

1. Click the **[Generate]** button after selecting and entering the filters you want to use. You can also click the **[Cancel]** button to return to the *Start Page* without generating a report. This query must scan a large amount of data, and it could return a large number of results. Generating this report could take significant time and produce a large amount of information.

2. A loading indicator ![Loading...] appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.

3. Click the **[Print]** button ![print icon] at the top of the window to print the report.

4. To save the Completed Runs report, click the **[Export]** button ![export icon] then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows *Save As* dialog opens, select a folder in which to store the file and click the **[Save]** button.

Generating an Audit Log report

1. To generate an Audit Log report, select **Administration** on the menu bar, and then select **Audit Log…** The Audit Log report is only available to administrator level users. Every occurrence of these types of events is recorded in the audit log:
   - User login/logout.
   - User creation, update and delete.
   - Instrument creation, update and delete.
   - Instrument diagnostic.
   - Instrument firmware update.
   - Sample creation, update and delete.
   - Kit Lot creation, update and delete.
   - Run creation, update and delete.
   - Run start and stop (automatically and user aborted).
   - Report generation.

2. When the *Activities report* window appears, select the date range to include and select the user you want to include.
   a. Select the **All dates** option to include test results done on any date, or select the **Date range** option to include test results done within a range of dates. If you select the **Date range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.
   b. Click the User dropdown menu to select the user you want to include. The default option is all users.

3. Click the **[Generate]** button after selecting and entering the filters you want to use. You can also click the **[Cancel]** button to return to the *Start Page* without generating a report. This query must scan a large amount of data, and it could return a large number of results. Generating this report could take significant time and produce a large amount of information.

4. A loading indicator ![Loading...] appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.

5. Click the **[Print]** button ![print icon] at the top of the window to print the report.

6. To save the Audit Log report, click the **[Export]** button ![export icon] then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows *Save As* dialog opens, select a folder in which to store the file and click the **[Save]** button.

Generating User Reports

The Users report is only available to administrator level users.

1. To generate a Users report, which lists active users, select **Reports** on the menu bar, and then select **Users…** You can also click **Generate Reports** next to the Generate Reports icon on the Start page, or your can click **Generate Reports** next to the Generate Reports icon on the Sidebar to generate a users report.

2. When the *Users report* window appears, select the date range to include. Select the **All dates** option to include test results done on any date, or select the **Date range** option to include test results done within a range of dates. If you select the **Date range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.

3. Click the **[Generate]** button after selecting and entering the filters you want to use. You can also click the **[Cancel]** button to return to the *Start Page* without generating a report. This query must scan a large amount of data, and it could return a large number of results. Generating this report could take significant time and produce a large amount of information.

4. A loading indicator appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.

5. Click the **[Print]** button at the top of the window to print the report.

6. To save the Users report, click the **[Export]** button then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows *Save As* dialog opens, select a folder in which to store the file and click the **[Save]** button.

Generating an Instrument Self-Check Results report

1. To generate an Instrument Self-Check Results report, which lists instrument self-check results, select **Reports** on the menu bar, and then select **Instrument Self-Check Results…** You can also click **Generate Report**s next to the Generate Reports icon on the Start page, or your can click **Generate Reports** next to the Generate Reports icon on the Sidebar to generate an Instrument Self-Check Results report. The Instrument Self-Check report is only available to administrator level users. There are no user serviceable failures. If an instrument self-check test fails, return the instrument to 3M for repair.

2. When the *Instrument Self-Check Results report* window appears, select the date range to include and select the filter parameters you want to use. Select the **All date**s option to include test results done on any date, or select the **Date range** option to include test results done within a range of dates. If you select the **Date range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.

3. Click the **[Generate]** button after selecting and entering the filters you want to use. You can also click the **[Cancel]** button to return to the *Start Page* without generating a report. This query must scan a large amount of data, and it could return a large number of results. Generating this report could take significant time and produce a large amount of information.

4. A loading indicator appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.

5. Click the **[Print]** button at the top of the window to print the report.

6. To save the Instrument Self-Check Results report, click the **[Export]** button then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows *Save As* dialog opens, select a folder in which to store the file and click the **[Save]** button.

Generating an Instrument Temperature Log report

1. To generate an Instrument Temperature Log report, which lists the instrument's temperature at 5 second intervals during all runs, select **Reports** on the menu bar, and then select **Instrument Temperature Log…** You can also click **Generate Reports** next to the Generate Reports icon on the Start page, or your can click **Generate Reports** next to the Generate Reports icon on the Sidebar to generate an Instrument Temperature Details report.

2. Select **Instrument Temperature Log…** from the list of reports that appears.

3. When the *Instrument Temperature Details report* window appears, select the date range to include and select the filter parameters you want to use and the values for the filter parameters you selected.

    a. Select the **All dates** option to include test results done on any date, or select the **Date range** option to include test results done within a range of dates. If you select the **Date range** option, enter the start and end dates by entering them directly or selecting them though use of the calendar. The default option is the date range including the past week.

    b. The filter parameters on the *Instrument Temperature Log report* window are both optional. Click the dropdown menu and select the values you want include in the Instrument Temperature Log report. The defaults are all run IDs and all instruments.

Filter Parameter	Description	Default	Type
Run ID	ID assigned to the run when it was set up (only completed runs are listed, oldest runs first)	All runs included	List
Instrument	Serial number of the instrument on which the test was done (connected and not connected instruments are listed)	All instruments included	List

4. Click the **[Generate]** button after selecting and entering the filters you want to use. You can also click the **[Cancel]** button to return to the *Start Page* without generating a report. This query must scan a large amount of data, and it could return a large number of results. Generating this report could take significant time and produce a large amount of information.

5. A loading indicator ⟳ Loading... appears while the 3M Molecular Detection Software generates the print preview for display on the screen. Refer to the Appendix for an example of this report.

6. Click the **[Print]** button at the top of the window to print the report.

7. To save the Instrument Temperature Log report, click the **[Export]** button then select a file format from the list (Microsoft Excel, Adobe PDF and Microsoft Word). When the Windows *Save As* dialog opens, select a folder in which to store the file and click the **[Save]** button.

Terms and Definitions

The following terms and definitions are used throughout this document.

CSV	Comma Separated Values – a data file where datum is separated by a delimiter character, commonly a comma.
DB	Database
EULA	End User License Agreement
GUI	Graphical User Interface
Kit Lot	3M manufacturing lot identifier located on the 3M Molecular Detection Assay kit box
LED	Light Emitting Diode
LIMS	Laboratory Information Management System
MC	Matrix Control
MDS	Molecular Detection System
NC	Negative Control
RAM	Random Access Memory – PC physical configured memory
RC	Reagent Control
RLU	Relative Light Units
Run	A test for the presence of target pathogens.
Sample	A food or environmental sample provided for testing.
SQL	Structured Query Language
SRAM	Static Random Access Memory
USB	Universal Serial Bus

Administrator Tasks

Backing up the Database

1. Open Microsoft SQL Server Management Studio (SSMS) and connect to the **SQLMDS** server.
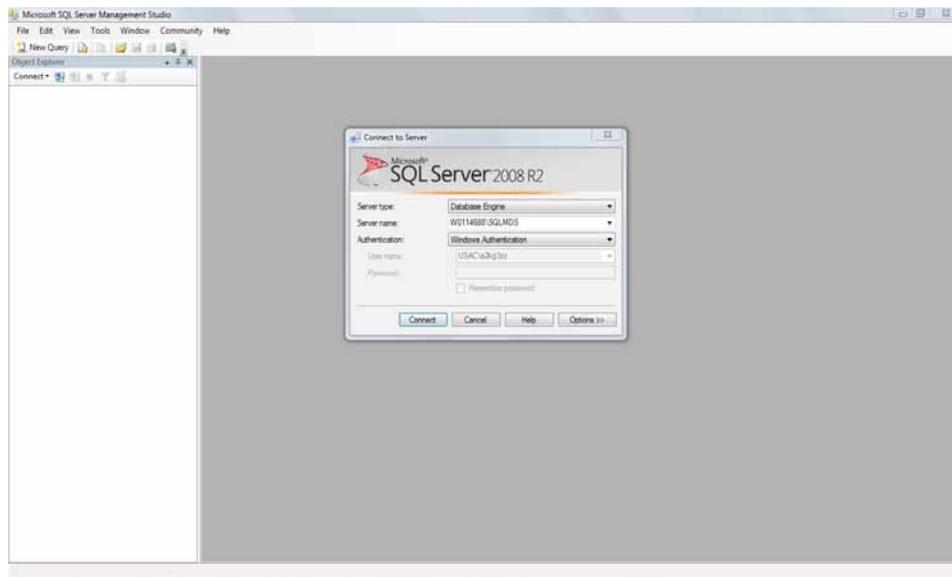
2. In the Object Explorer pane, expand **Databases**.
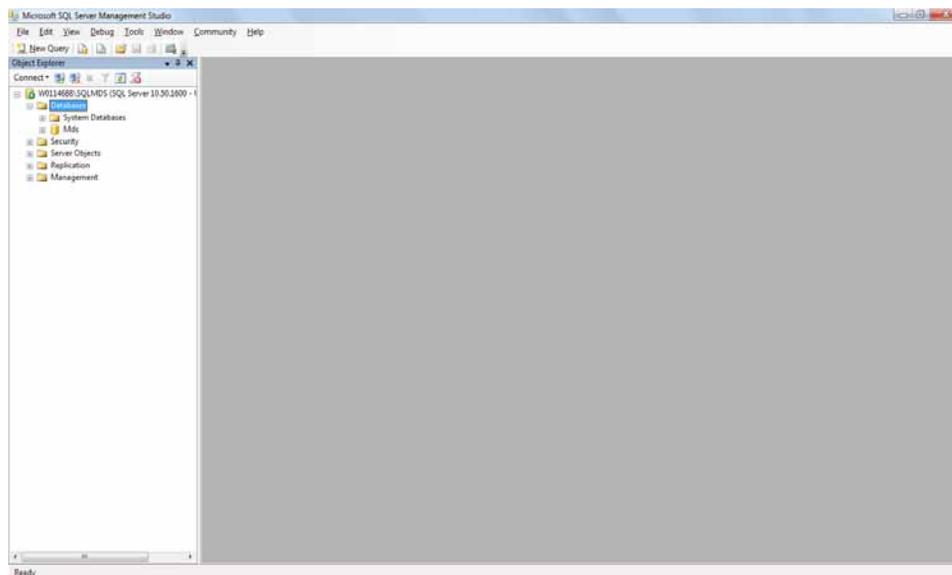
3. Right-click **Mds**, select **Tasks**, and then select **Back Up…**
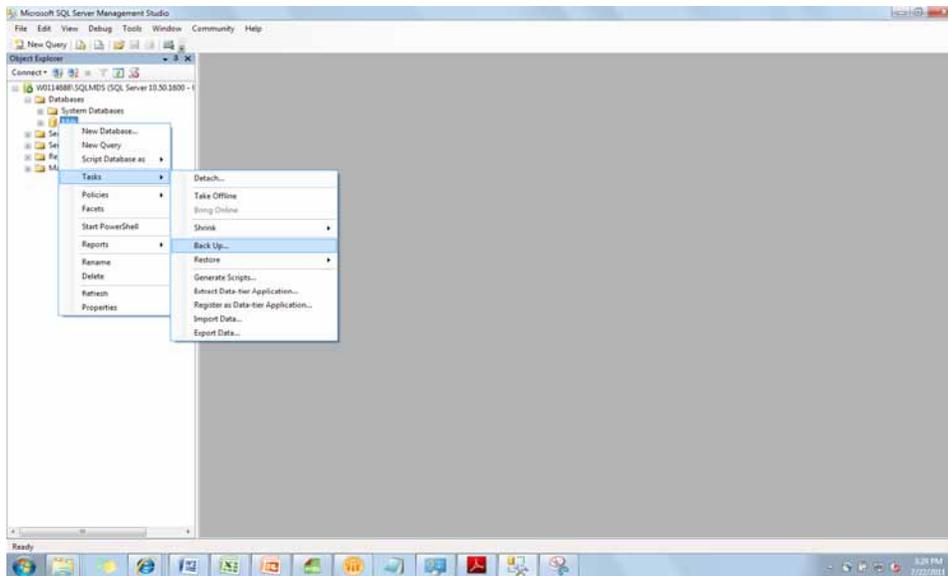
4. In the Destination section, highlight the back up location listed, and click the **[Remove]** button to clear the default destination.
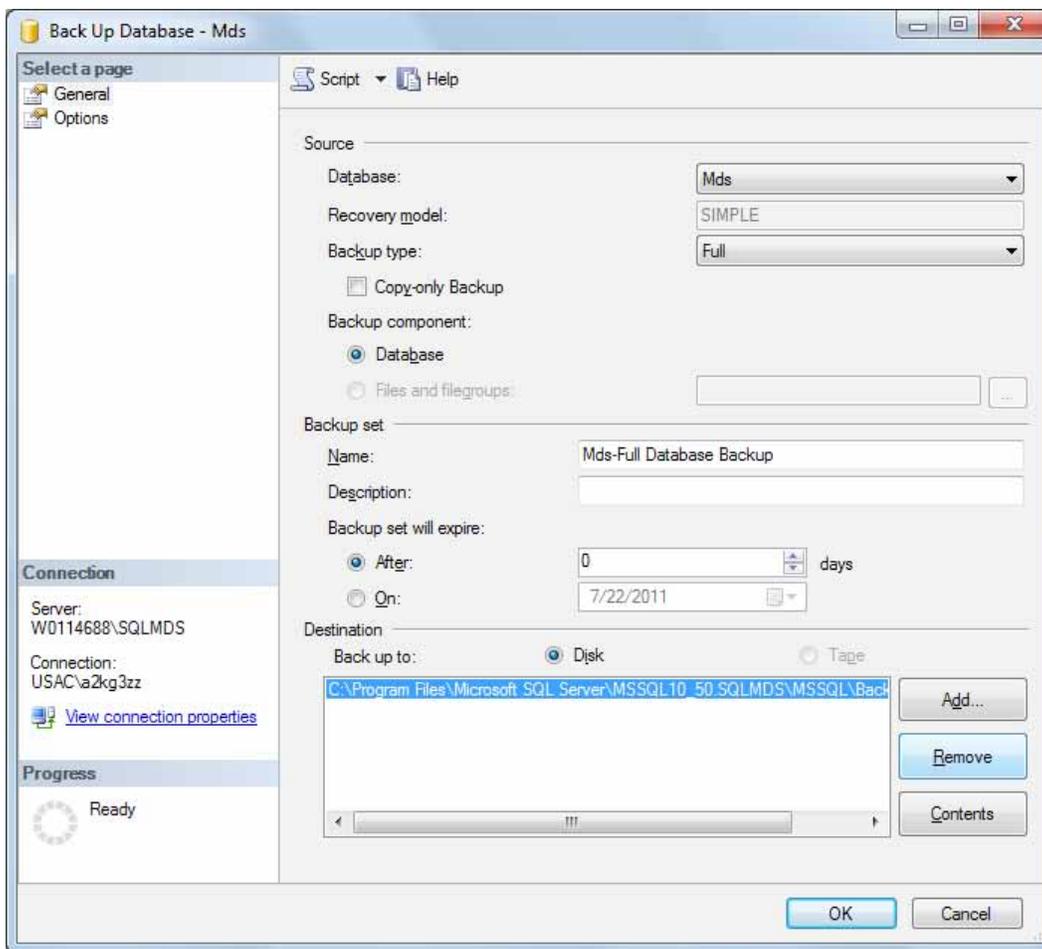
5. To add a new back up destination, click the **[Add…]** button, and then click the **[…]** button in the *Select Backup Destination* dialog.
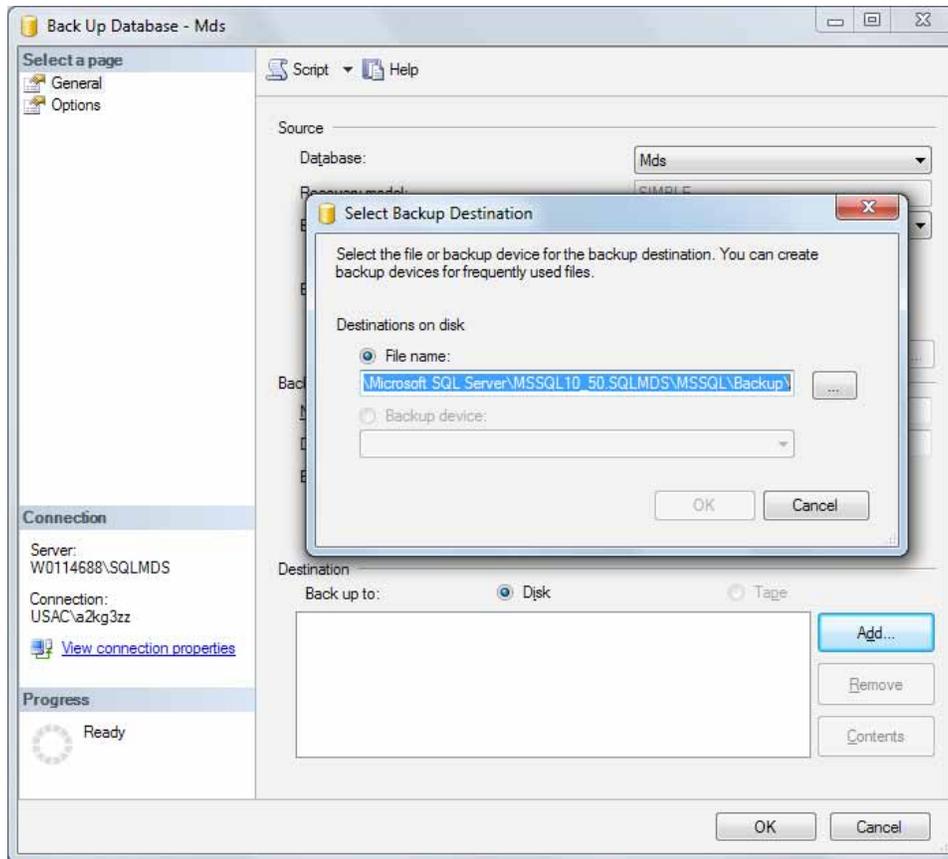
6. Select your backup destination and enter a file name with the .bak extension. Use a unique name for each backup file to easily differentiate them. Click **[OK]**, and then click **[OK]** again. **Note:** The default back up destination is in the Microsoft SQL program folder. For easier retrieval of the file, back up to a USB flash drive. (E:\ is the drive location in the screenshot below).
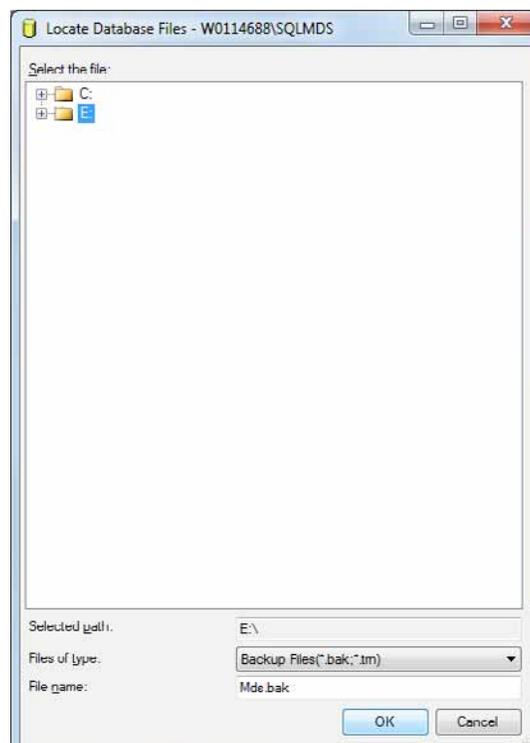
7. Confirm that the new back up destination is listed in the **Destination** section, and then click **[OK]** to start the process.
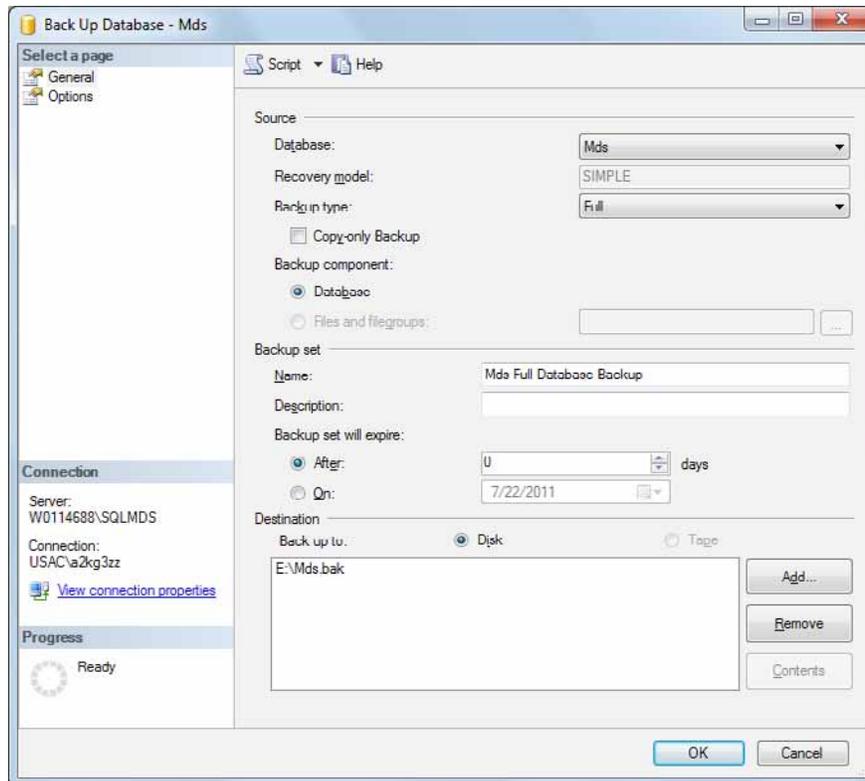
8. Progress is shown in the lower-left of screen. When the restoration is complete, a "successful" message appears.
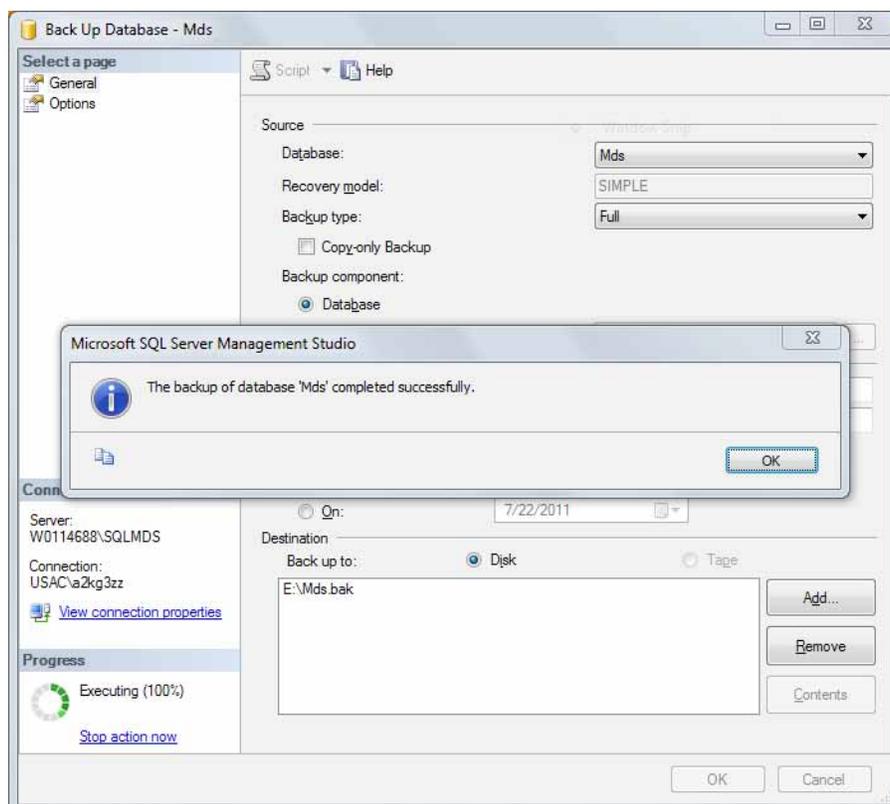
9. Check your back up destination to confirm that the .bak file is present.

Restoring the Database from a Backup

Note: If the database version is older than the software version, restore the database following the instructions below and then reinstall the 3M Molecular Detection Software. Be sure to use the existing Mds database on installation.

1. Open Microsoft QL Server Management Studio and connect to the **SQLMDS** server.
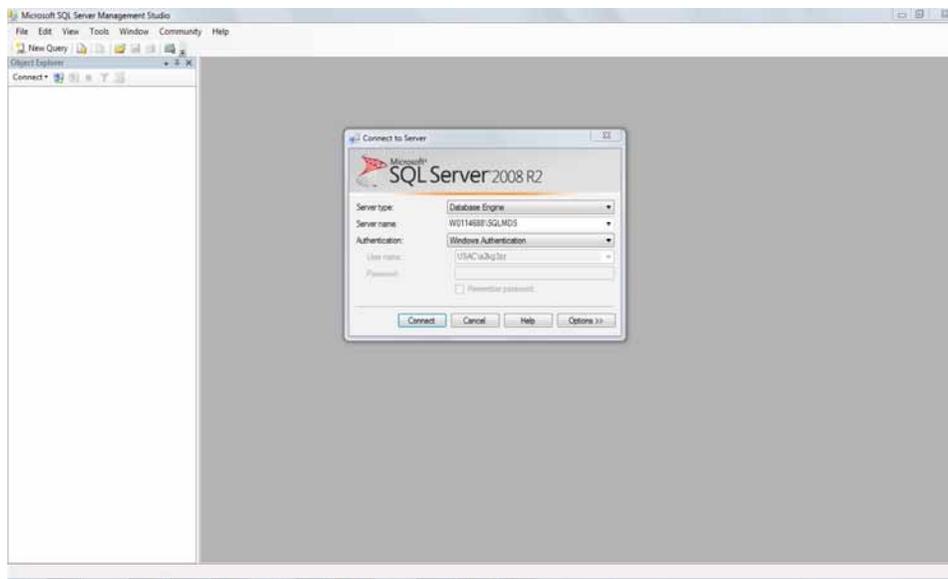
2. In the *Object Explorer*, expand **Databases**. If an **Mds** database exists, back it up and then delete it. Right-click **Mds**, select Delete, and click [OK]. Then, right-click **Databases** and select **Restore Database**.
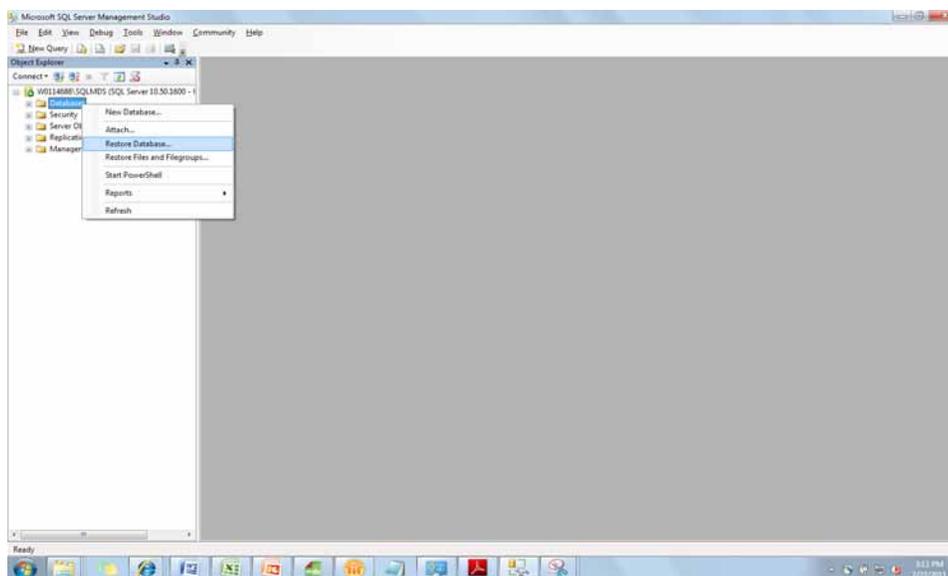
3. In the **To database:** field, type "Mds".
4. In the **Source for restore** section, select **From device:** and click the **[…]** button.
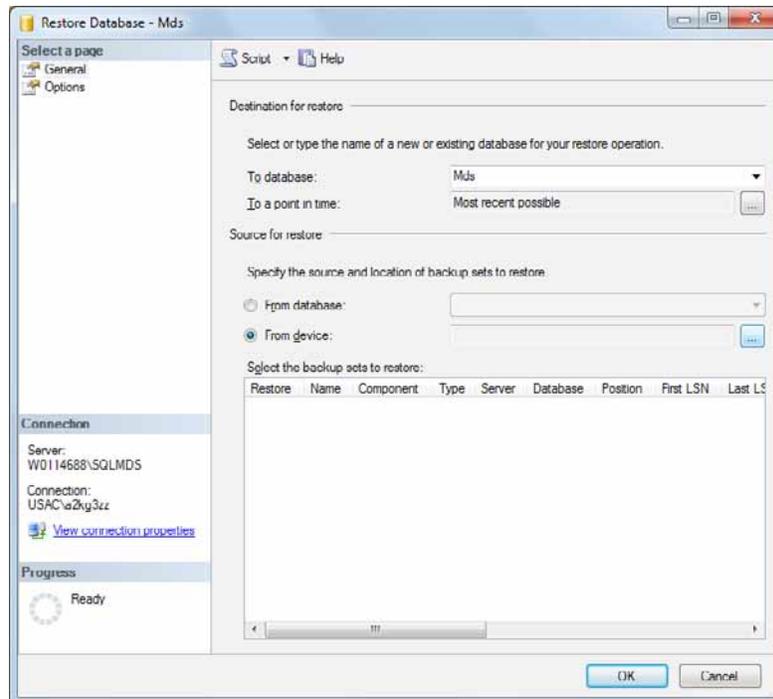
5. Click the **[Add]** button, and then select the database backup (*.bak) from your storage location. Click **[OK]**, and then **[OK]** again.
   Note: Navigating folders in this view can be difficult. If the database is located on your hard drive, copy it to the C:\ drive, or to a USB flash drive, before this step. (E:\ is the drive location in the screenshot below).
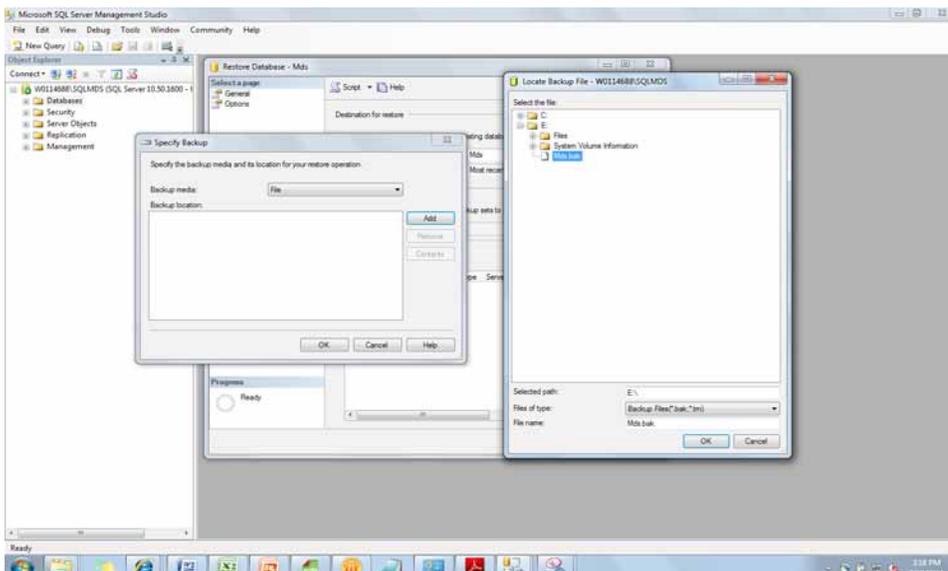
6. Check the **Restore** box and click **[OK]** to start the process.
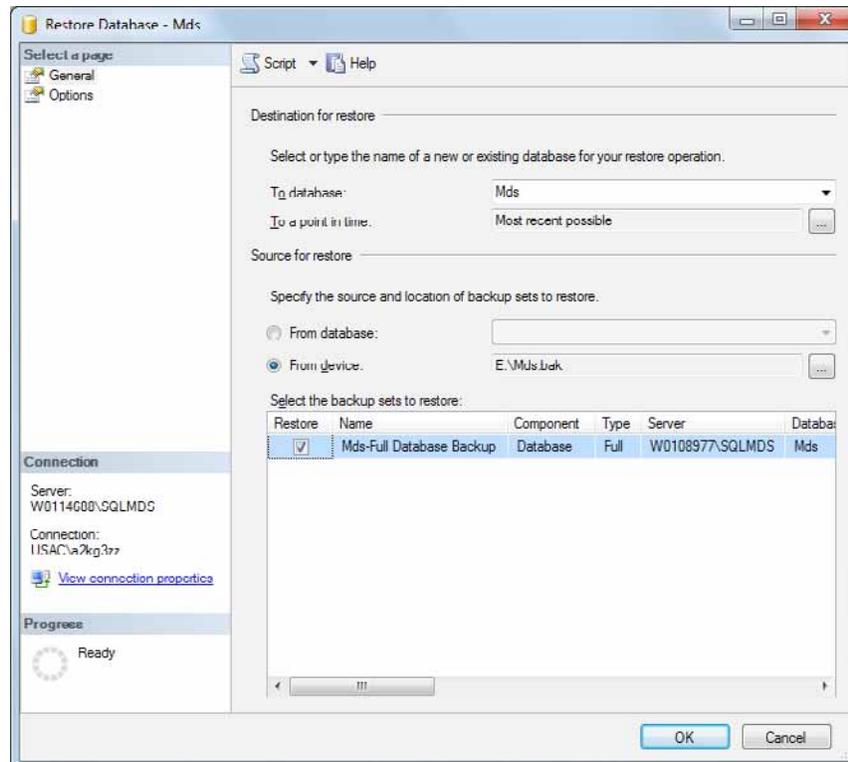
7. Progress is shown in the lower-left of screen. When the restoration is complete, a "successful" message appears.
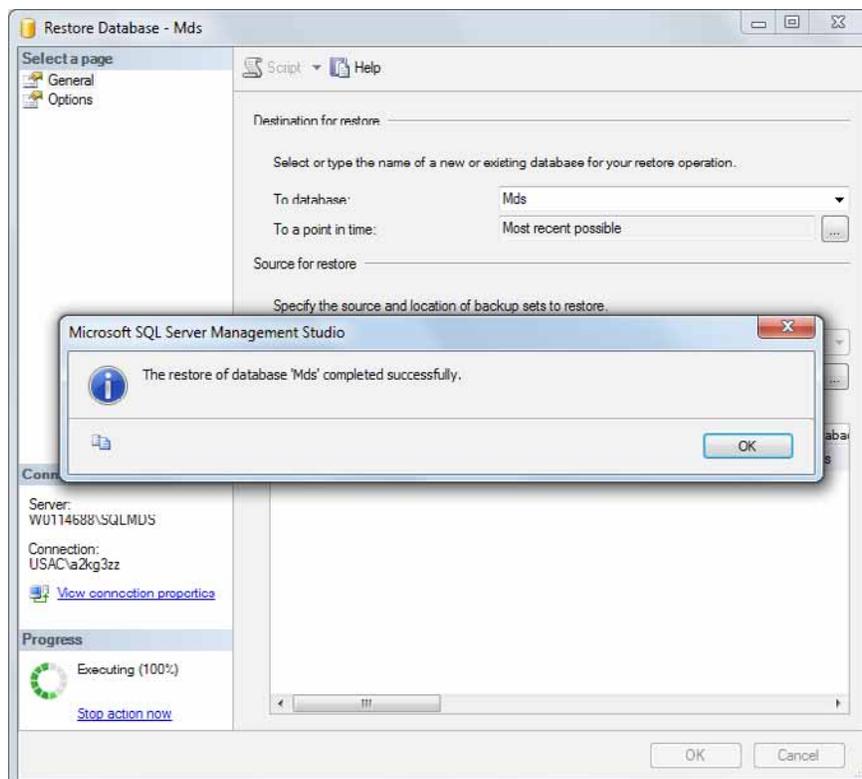
8. In the *Object Explorer*, expand **Databases**. The **Mds** database should be listed.
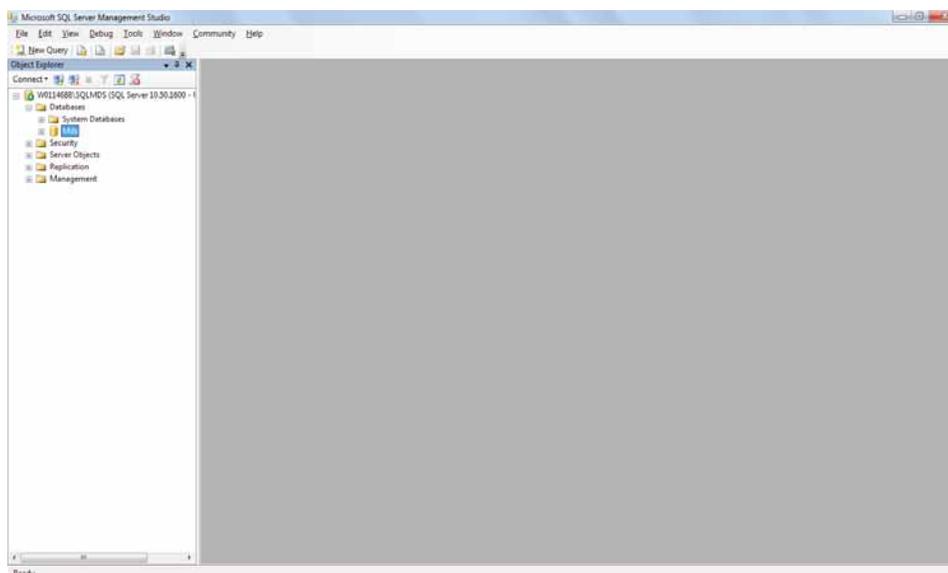
Uninstalling the Software

You can uninstall the 3M Molecular Detection Software by using any one of these three methods: All Programs menu, Uninstall.exe, or Control Panel.

All Programs Menu

1. Click **Start** on the Windows Desktop, and then select **All Programs.**
2. Select **3M**
3. Select **3M Molecular Detection System**
4. Select **Uninstall**
5. The *Uninstall 3M Molecular Detection System Uninstall* dialog appears. You have the option to delete or to save the existing 3M Molecular Detection System database. The default is to save the database. To delete the database, click the **Delete database** checkbox.
6. Click the **[Uninstall]** button to uninstall the software or click the **[Cancel]** button to cancel the uninstall action.

Uninstall.exe

1. Use Windows Explorer to navigate to C:\Program Files\3M\3M Molecular Detection System. If you did not select the default destination folder for the installation root during the installation wizard process, navigate to the destination folder for the installation root you selected during the installation wizard process.
2. Double-click **Uninstall.exe**
3. The *Uninstall 3M Molecular Detection System Uninstall* dialog appears. You have the option to delete or to save the existing 3M Molecular Detection System database. The default is to save the database. To delete the database, click the **Delete database** checkbox.
4. Click the **[Uninstall]** button to uninstall the software or click the **[Cancel]** button to cancel the uninstall action.

Control Panel

5. Click **Start** on the Windows Desktop, and then select **Control Panel.**
6. Double-click **Add or Remove Programs.**
7. Select **3M Molecular Detection System**
8. Select **Change/Remove**

9. The *Uninstall 3M Molecular Detection System Uninstall* dialog appears. You have the option to delete or to save the existing 3M Molecular Detection System database. The default is to save the database. To delete the database, click the **Delete database** checkbox.

10. Click the **[Uninstall]** button to uninstall the software or click the **[Cancel]** button to cancel the uninstall action.
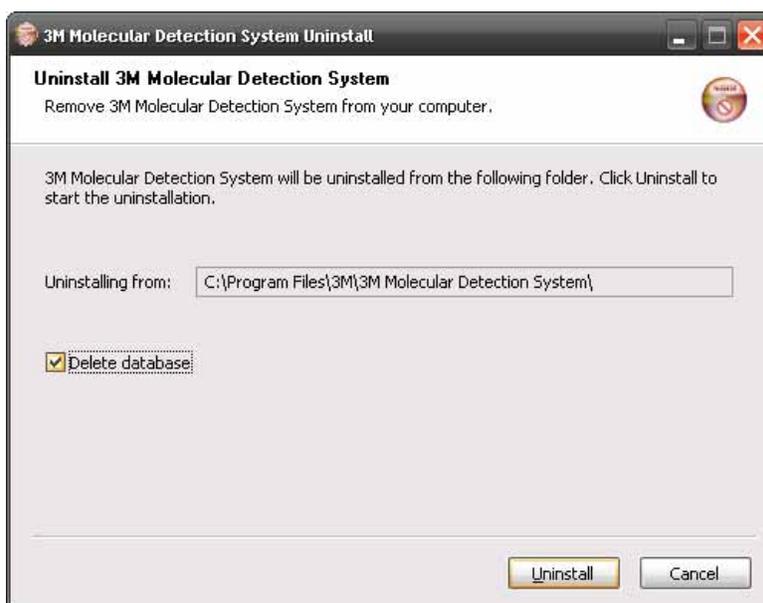
Uninstall Screen

Running a 3M Molecular Detection Instrument Self-Check

Before you begin

- The 3M Molecular Detection Instrument Self-Check starts automatically upon power-on and can be started using the software. 3M recommends performing the Self-Check each day you use the 3M Molecular Detection Instrument.

- The Self-Check includes the following tests:

    – Firmware validity

    – LED function

    – Power distribution

    – Heater function

    – Photodiode function

    – Memory integrity check

- Do the following before starting a Self-Check to prevent failure:

    – Ensure that the pluggable heater is installed properly

    – Remove the 3M Speed Loader Tray from the instrument

    – Close the instrument lid

- The Self-Check lasts approx. 2 min. During the Self-Check, the instrument status light cycles colors, the power light flashes red for a period, and then all lights turn off.

- If you want to capture the start-up Self-Check result in the software, connect the instrument to the computer and log in to the software before turning on the instrument.

Starting a Self-Check

1. Power-cycle the 3M Molecular Detection Instrument, or right-click the instrument icon in the software status bar to display the context-sensitive menu. You can also double-click the instrument icon to open the instrument tab.
2. Select **Start the Self-Check.**
3. The instrument icon will change to white and the **Instrument Status** will change to **Diagnose**. You can view the Self-Check progress bar in the instrument tab.
4. When the Self-Check is complete, a pop-up notification appears and shows the result (i.e., passed or failed). The instrument status bar and icon also indicate the result, as shown in the table below:

Instrument Status Light	Instrument Icon	Result
Solid Orange or Green		Pass
Flashing Red	(Flashing)	Fail

5. Click the **[OK]** button to dismiss the notification or the **[View Report]** button to view the results of the individual tests.
6. You can view past Self-Check results by selecting **Instrument Self-Check Results** in the **Reports** menu. Refer to the section in this manual on Generating Reports for more information.
7. Refer to the Troubleshooting section for information about troubleshooting Self-Check failures.

Viewing the Error Log File

The 3M Molecular Detection Software generates an error log file that assists in troubleshooting software errors. Error messages displayed in the software may refer to this file for more information about the specific error. Only one copy of this file exists per user account on the computer, and it is used during every 3M Molecular Detection Software run. The file is located in the following folder:

Windows XP
C:\Documents and Settings\<Username>\3M\3M Molecular Detection System\LOG

Windows Vista/7
C:\Users\<Username>\3M\3M Molecular Detection System\LOG

Upgrading the Firmware in Windows XP

1. Do not attempt to upgrade the instrument's firmware unless directed by a 3M representative. If a firmware upgrade is required to improve the performance of the instrument, a 3M representative will contact you and will provide you the media containing the upgrade.
2. Use Windows Explorer to copy the firmware upgrade file, firmware.bin to the C:\Program Files\3M\3M Molecular Detection System\Firmware\DFU folder. This is the default installation Destination folder. If you selected a different folder during software installation, the this folder is found in the location you defined. Replace the existing firmware.bin file.
3. After you copy the firmware.bin file into the correct folder, you must start the upgrade process. Upgrading the firmware is restricted to Administrator users. You can start the upgrade by clicking **Upgrade firmware** in the instrument's context-sensitive menu or the **[Upgrade Firmware]** button in the instrument tab. When you start the upgrade process, the instrument is logically disconnected from the system and the instrument icon will disappear from the status bar.
4. A black *UpgradeIt* command window opens.

Firmware Installation Folder

5. If you are upgrading the firmware for the first time using this computer, you must minimize the *UpgradeIt* window at this time and install the supporting device drivers.
6. When the *Found New Hardware Wizard* appears, select **Install from a list or specific location (Advanced)**.
7. Select **Search for the best driver in these locations** and check **Include this location in the search**
8. Browse to the Dfu\Drivers folder location in the Molecular Detection System folder described in step 2 above.
9. After the wizard installs the drivers, the computer completes its device recognition process and notifies you that the new device is ready for use.
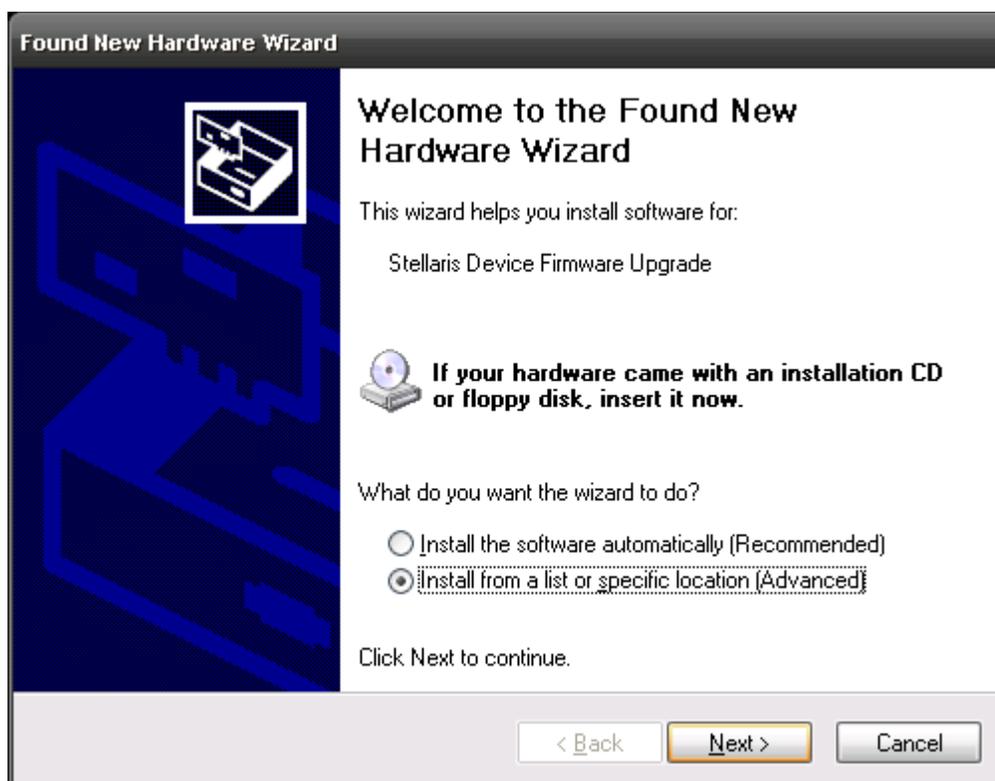
Windows XP Firmware Upgrade Driver Installation (1)

Windows XP Firmware Upgrade Driver Installation (2)

Windows XP Firmware Upgrade Driver Installation (3)

Windows XP Firmware Upgrade Driver Installation (4)

10. After the driver is installed, a reboot is required.
11. After the reboot, open the software, right-click the instrument icon, and select **Upgrade firmware**.
12. Enter "Yes" or "Y" in the command window as shown in below. The new firmware is downloaded to the instrument, and the instrument restarts and begins a Self-Check.
13. The instrument is recognized by the 3M Molecular Detection Software and the instrument icon appears in the status bar. Hovering over the instrument icon shows the new firmware revision number.
14. If the instrument is not recognized, an error has occurred. To recover, switch the instrument off and then back on and restart the upgrade process.

UpgradeIt **Command Window**

Upgrading the Firmware in Windows 7/Vista

1. Do not attempt to upgrade the instrument's firmware unless directed by a 3M representative. If a firmware upgrade is required to improve the performance of the instrument, a 3M representative will contact you and will provide you the media containing the upgrade.
2. Use Windows Explorer to copy the firmware upgrade file, firmware.bin to the C:\Program Files\3M\3M Molecular Detection System\Firmware\DFU folder. This is the default installation Destination folder. If you selected a different folder during software installation, this folder is found in the location you defined. Replace the existing firmware.bin file.
3. After you copy the firmware.bin file into the correct folder, you must start the upgrade process. Upgrading the firmware

is restricted to Administrator users. You can start the upgrade by clicking Upgrade firmware in the instrument's context-sensitive menu or the [Upgrade Firmware] button in the instrument tab. When you start the upgrade process, the instrument is logically disconnected from the system and the instrument icon will disappear from the status bar.

4. A black UpgradeIt command window opens.

Firmware Installation Folder

5. If you are upgrading the firmware for the first time using this computer, you must minimize the UpgradeIt window at this time and install the supporting device drivers.
6. The automatic installation will fail. Open the Device Manager, right-click Device Firmware Upgrade, and select Upgrade Driver Software.
7. Select Browse my computer for driver software.
8. Click Browse.
9. Browse to the Dfu\Drivers folder location in the Molecular Detection System folder described in step 2 above.
10. A Windows Security window will appear. Click Install this driver software anyway.
11. After the wizard installs the drivers, the computer completes its device recognition process and notifies you that the new device is ready for use.
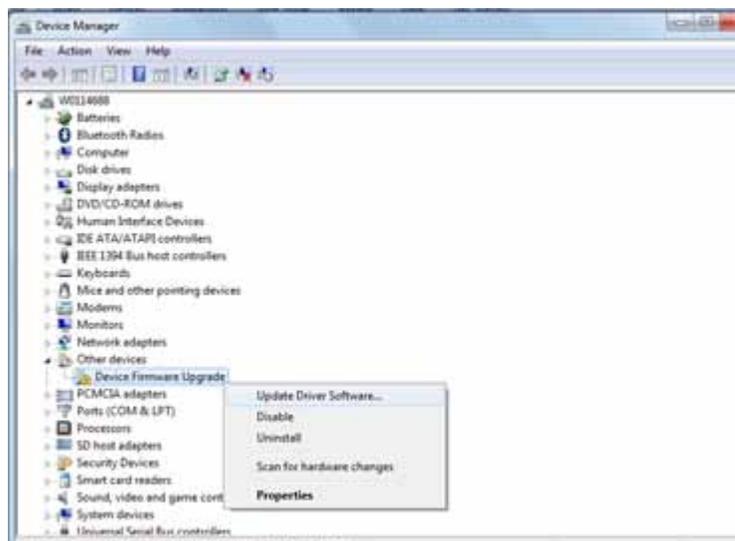
Device Manager
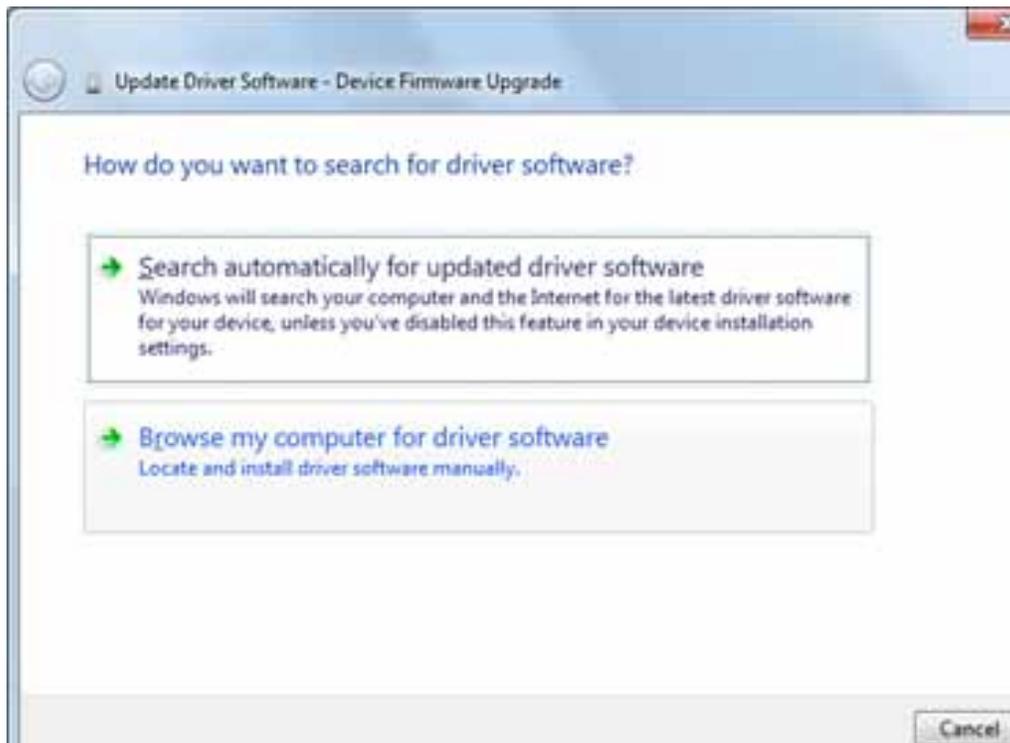
Windows 7/Vista Firmware Upgrade Driver Installation (1)
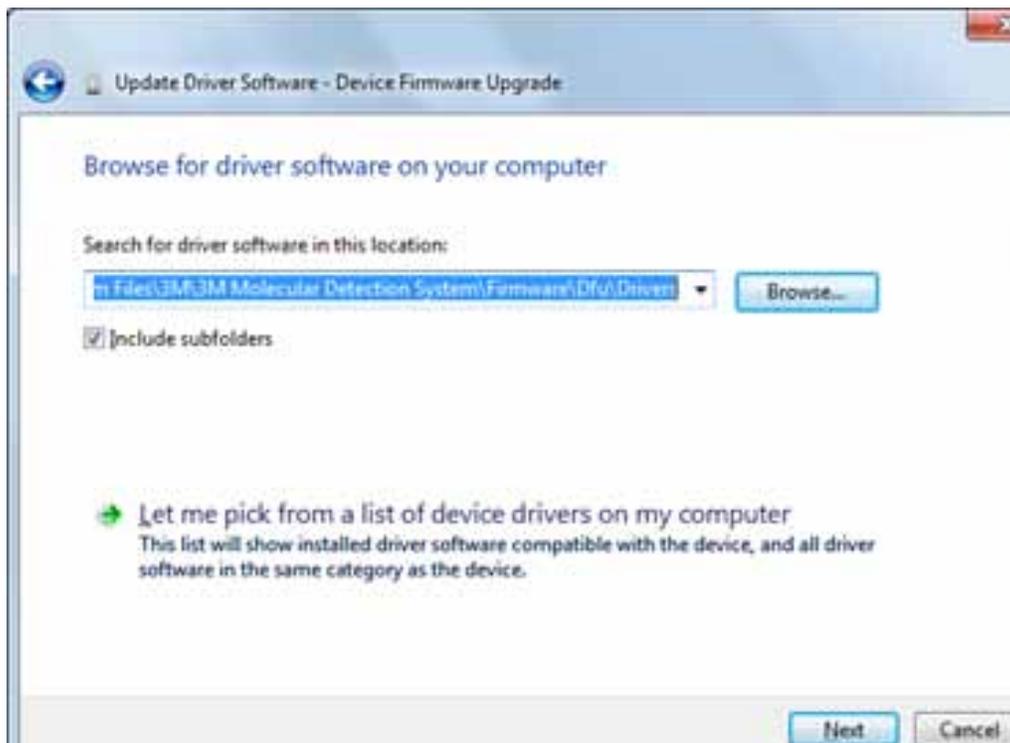
Windows 7/Vista Firmware Upgrade Driver Installation (2)
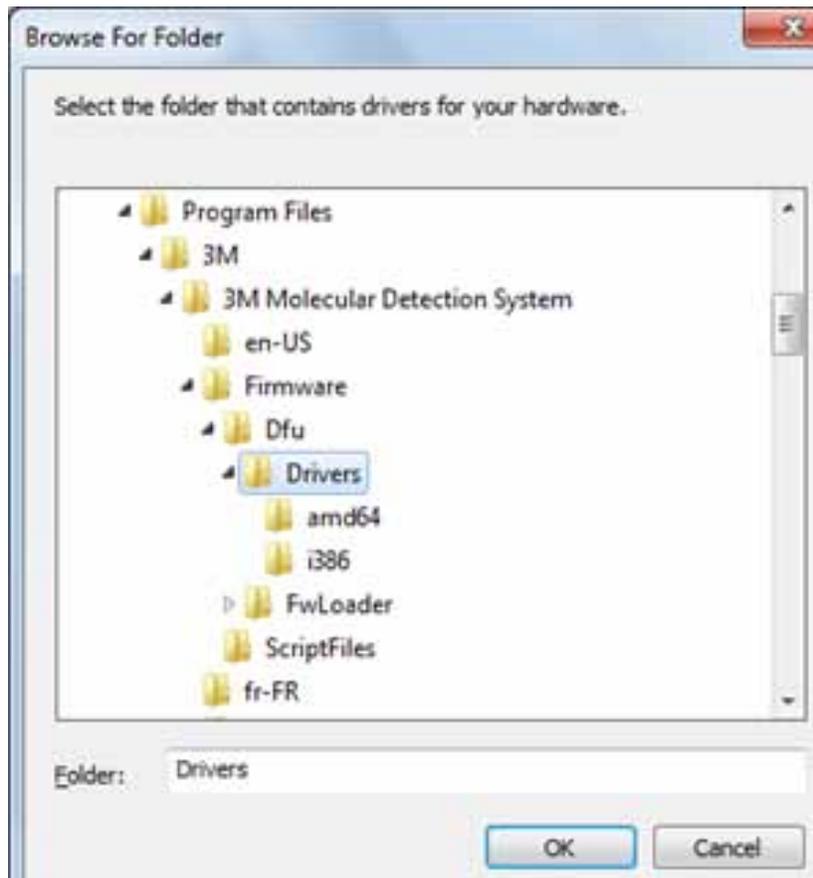
Windows 7/Vista Firmware Upgrade Driver Installation (3)

Windows 7/Vista Firmware Upgrade Driver Installation (4)

Windows 7/Vista Firmware Upgrade Driver Installation (5)

12. After the driver is installed, enter "Yes" or "Y" in the command window as shown in below. The new firmware is downloaded to the instrument, and the instrument restarts and begins a Self-Check.
13. The instrument is recognized by the 3M Molecular Detection Software and the instrument icon appears in the status bar. Hovering over the instrument icon shows the new firmware revision number.
14. If the instrument is not recognized, an error has occurred. To recover, switch the instrument off and then back on and restart the upgrade process.

UpgradeIt Command Window

Cleaning and Decontaminating the Instrument

WARNING: Follow established laboratory practices and wear appropriate Personal Protection Equipment (PPE) when handling the instrument or plates or when cleaning and decontaminating the instrument.

WARNING: To reduce the risks associated with hazardous voltage, always turn the instrument off and disconnect from outlet before cleaning and decontaminating the instrument.

Clean and decontaminate the instrument immediately if any spills occur.

Clean the external surfaces of the instrument regularly once per month.

Decontaminate the interior of the instrument regularly once per month.

Cleaning the External surfaces

1. Turn off the power (1), and then disconnect the power cable (2) and the USB cable (3) on the back panel.
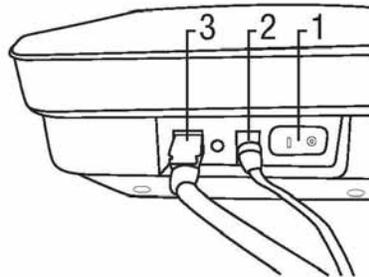
2. Use a disposable towel (1) lightly dampened with 1-5% (v:v in water) household bleach solution to gently wipe the outer surfaces of the instrument. Wring out the disposable towel thoroughly so it is damp, but not dripping. Avoid the power cable connection and the USB cable connection on the back panel when cleaning the exterior surfaces.

3. Use another disposable towel to repeat the procedure with DI water (distilled water or deionized water).

⚠ Decontaminating the interior

4. Allow the lid heater and the pluggable heater to cool for five minutes before lifting the instrument's lid.

5. Lift the instrument's lid and remove the 3M Speed Loader Tray (1) from the instrument.
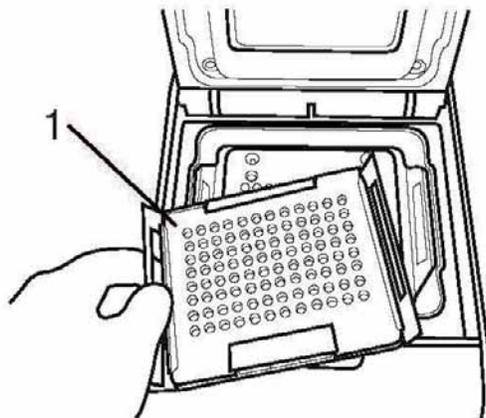
6. Use a 1-5% (v:v in water) household bleach solution spray bottle to spray the speed-loader with bleach.

7. Use a disposable towel to wipe the bleach off the speed-loader tray.

8. Hold the 3M Speed Loader Tray under a stream of tap water from the faucet in a sink in the lab to rinse the 3M Speed Loader Tray.

9. Set the 3M Speed Loader Tray aside in a spot where it can air dry for at least one hour.
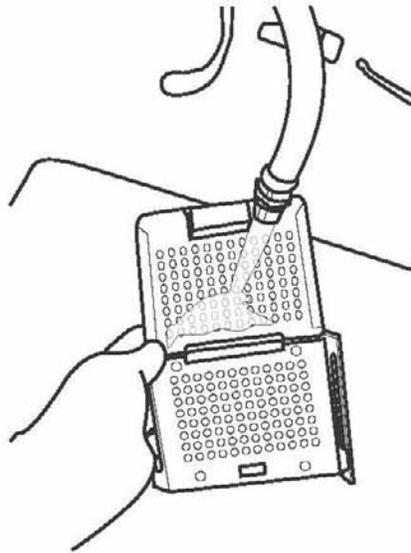
10. Remove the pluggable heater from the instrument and use a 1-5% (v:v in water) household bleach solution spray bottle to spray the pluggable heater with bleach.
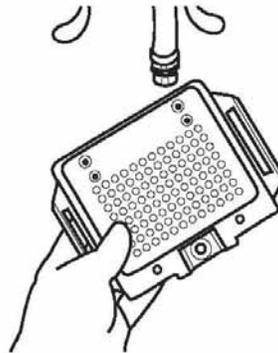
11. Use a disposable towel to wipe the bleach off the pluggable heater.

12. Hold the pluggable heater under a stream of tap water from the faucet in a sink in the lab to rinse the pluggable heater.
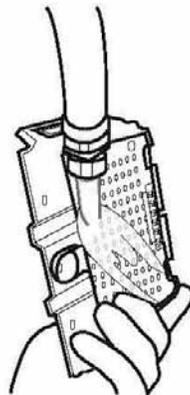
13. Use a dry disposable towel to wipe the pluggable heater until it's dry.
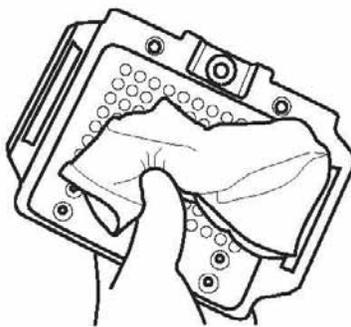
14. Use a dry disposable towel to gently press down on each spring pin (1) on the pluggable heater.
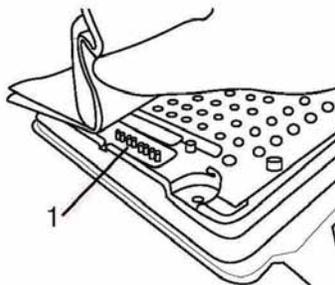
15. Set aside the pluggable heater in a spot where it can air dry for at least one hour.

16. Use a disposable towel lightly dampened with 1-5% (v:v in water) household bleach solution to gently wipe the inner surfaces of the instrument. Wring out the disposable towel thoroughly so it is damp, but not dripping.

17. Use another disposable towel to repeat the procedure with DI water (distilled or deionized water).

18. Use a dry disposable towel to wipe the interior surfaces of the instrument until they're dry. Allow the interior surfaces of the instrument to air dry for at least 1 hour. Do not reconnect the power cable and the USB cable until you have allowed the instrument to air dry for at least 1 hour.

19. Connect the USB cable (3), connect the power cable (2) and turn on the power (1).
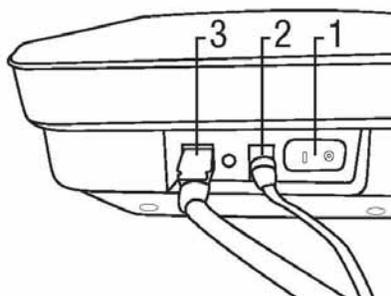
Packing the instrument for shipment to 3M for service

WARNING: always follow the cleaning and decontamination procedure prior to returning the instrument for service.

1. Turn the 3M Molecular Detection System off using the on/off switch located on the instrument's back panel.
2. Remove the USB cable from the USB 2.0 port on the instrument's back panel (5), and from your computer's USB 2.0 port (6).
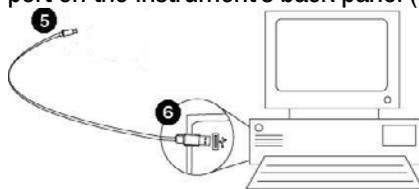
3. Disconnect the power supply cord (1) from the AC power outlet (4), then disconnect the power supply (2) from the 3M Molecular Detection System power port (3).
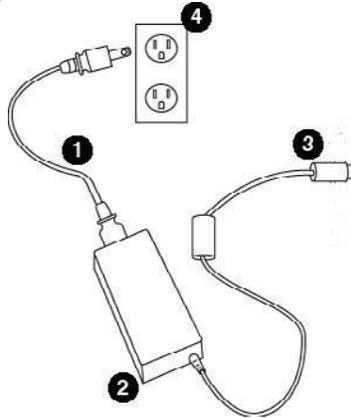
4. Pack the 3M Molecular Detection instrument in the shipping container in which the loaner 3M Molecular Detection instrument arrived.
5. Close the shipping container to seal the 3M Molecular Detection System and its accessories inside the shipping container.

Troubleshooting

Troubleshooting the 3M Molecular Detection Instrument

Problem	Possible Cause	Solution
Instrument remains in Heat state (orange status light) Core Temp shows -Infinity °C Self-Check fails Core Heater and/or Lid Heater test	Pluggable heater is not installed correctly	Reinstall pluggable heater and power cycle the instrument
	Puggable heater was recently cleaned and not completely dry	Allow heater to air dry longer
	Heater pogo pins are not straight	Straighten pins
	Pin heads on the inner shell are dirty or corroded	Clean pins
Core Temp shows "NaN"	Software and instrument are out of sync	Power cycle the instrument
Self-Check fails Photodiodes test	Instrument lid open and/or tray/tubes inside instrument during self check	Remove tray/tubes, close lid, and restart Self-Check
Self-Check fails Power test	Power connections are not secure	Turn power switch to off, check connections, and turn switch to on.
Self-Check fails SRAM test	Memory corruption	Reinstall firmware. If failure persists, return instrument for repair.
Self-Check fails Firmware test	Memory corruption Checksum mismatch	Reinstall firmware. If failure persists, return instrument for repair.
Self-Check fails Serial Number test	Invalid serial number	Reinstall firmware. If failure persists, return instrument for repair.
Lid does not open	Pluggable heater and/or Speed Loader Tray are not seated properly	1. Power cycle the instrument. 2. If lid not does open using the main lid button, use emergency lid release on the bottom of instrument. Remove the screw covering the button, and then insert a thin object (e.g., unfolded paperclip) into the hole and press the button. 3. Check that heater and/or tray are secure.
	Solenoid malfunction	1. Power cycle the instrument. 2. If lid not does open using the main lid button, use emergency lid release on the bottom of instrument. Remove the screw covering the button, and then insert a thin object (e.g., unfolded paperclip) into the hole and press the button. 3. Open lid, hold lid plunger down, and press lid open button. 4. If solenoid does not actuate (no clicking sound), return instrument for repair.

Problem	Possible Cause	Solution
Lid does not stay closed	Debris in latch and/or inner shell	Clean latch and/or inner shell
	Solenoid stuck in open position	Power cycle the instrument. If failure persists, return instrument for repair.
Status bar is off, but power light is on	Instrument is in Standby mode	Wake from Standby using software or power cycle the instrument
	LEDs are not functioning	Start a Self-Check and monitor the status bar for color changes. If you do not see red, green, and blue colors, return instrument for repair.
Instrument will not turn on	Power connections are not secure	Turn power switch to off, check connections, and turn switch to on.
	Power light not functioning	Connect instrument to computer, turn power switch to on, and check instrument status in software

Troubleshooting 3M Molecular Detection Software Installation

Problem	Possible Cause	Solution
A message appears during SQL Server installation stating that certain components/dependencies are not installed	Required component missing	Install specific component
"SQL Server Setup has encountered an error when running a Windows Installer file" message appears during SQL Server installation	Multiple causes	Click Cancel. A failure message will appear when the installation finishes. Reboot the computer and restart the SQL Server installation.
Failure at end of SQL Server installation	Multiple causes	Reboot and reinstall SQL Server.
"Error opening file for writing" message appears during MDS application installation on Windows Vista or 7	Application does not have administrator rights	Abort the installation, then right-click the 3M.Mds.exe file and select **Run as administrator.**
"SQL Server does not exist or access denied" message appears on Database Connection Settings screen of MDS application installation	The SQL Server server name is incorrect	Enter the correct server name, which is typically the local computer name followed by "/SQLMDS". The computer name can be found in Computer Properties in Windows.

Problem	Possible Cause	Solution
"An error occurred during application language initialization. Please check the database connection." message appears after opening the MDS application	The SQL Server is not online	Use SQL Server Configuration Manager to check the server state and start the server
	The database was not installed properly	Reinstall the MDS application
	The SQL Server was not installed properly	Reinstall SQL Server
	The Windows user account does not have access to the SQLMDS server	Provide the Windows user account access to the SQLMDS server using SQL Server Management Studio

Troubleshooting 3M Molecular Detection Software Operation

Problem	Possible Cause	Solution
Import error stating "Invalid file format"	The import file does not have the proper file extension or delimiter type.	Set the file extension and delimiter type in the Import and Export Options to match the file you want to import
	The number of header lines in the import file does not match the setting in Import and Export Options	Set the number of header lines in the Import and Export Options to match the file you want to import.
	Empty fields must be delimited by a comma in CSV files, even after the last value in the line.	Open the CSV file in notepad and add commas where needed
After importing a run setup file, wells in the first column that should be defined are empty	The number of header lines in the import file does not match the setting in Import and Export Options	Set the number of header lines in the Import and Export Options to match the file you want to import.
Error on file import stating "do not have required permission"	The import file location is set to the Progam Files directory in Windows 7	Go to Import and Export Options and set the import file location to another location such as the Documents Folder
Error on file export stating "do not have required permission"	The export file location is set to the Progam Files directory in Windows 7	Go to Import and Export Options and set the export file location to another location such as the Documents Folder
Cannot start a new run	Run is not saved	Save the run
	Instrument is not in the Ready state (green status bar)	Allow the instrument to reach the Ready state before starting the run. If the instrument is in Standby (status bar has no color), wake the instrument.
	The instrument is in the TestComplete state (red status bar)	Open and close the instrument lid.
Sample ID and/or Kit Lot Number values are not being saved into the Setup (Grid) or Setup (List) tabs	You are trying to enter a value into the gray drop-down list. New values cannot be entered when the field is in list mode.	1. Click the + button to toggle the field to text entry (white) 2. Type the value 3. Click the green button or press Enter.
Kit Lot Number is not being saved in the Setup (Grid) or Setup (List) tabs	You are trying to enter a non-unique Kit Lot Number.	Check the Kit Lot Number and retry. Kit Lot Numbers must be unique (e.g., SAL and ECO kits cannot have the same lot number).
A run failed due to a Temperature Error	Temperature error	1. Remove the tray from the instrument 2. Reseat the pluggable heater 3. Run a Self-Check 4. If the Self-Check fails or additional runs fail due to this error, return for repair.

Problem	Possible Cause	Solution
A run failed due to Instrument Disconnection	USB cable disconnected	Check the instrument USB connection
	Power loss	Check the instrument power
The software is not responsive to input or seems frozen	A report is currently open in the report viewer. When the report viewer is open, the main software screen is not usable.	Switch to the report using the icon in the Windows Task Bar. Close the report viewer and return to the main software screen.

Contacting 3M for product and service information

1. Use your web browser to go to 3M Food Safety product Information at www.3M.com/foodsafety
2. Call 3M Technical Support

3M Technical Support

3M United States	3M Canada	3M Europe and MEA	3M Latin America
3M Center	Post Office Box 5757	3M Deutschland GmbH	3M Center
Bldg. 275-5W-05	London, Ontario N6A 4T1	Carl-Schurz - Strasse 1	Bldg. 275-5W-05
St. Paul, MN 55144-1000	Canada	D41453 Neuss/Germany	St. Paul, MN 55144-1000
USA	1-800-563-2921	+49-2131-14-3000	USA
1-800-328-6553	1-800-563-2921	49 2131 143000	1-954-340-8263

3M Asia Pacific	3M Japan	3M Australia
No 1, Yishun Avenue 7	3M Health Care Limited	Bldg A, 1 Rivett Road
Singapore, 768923	33-1, Tamagawadai 2-chrome	North Ryde, NSW 2113
65-64508869	Setagaya-ku, Tokyo	Australia
	158-8583, Japan	61 1300 363 878
	81-570-011-321	

Trademarks

3M, and the 3M Logo are trademarks of 3M. Microsoft Windows XP, Microsoft Vista and Microsoft Windows 7 are registered trademarks of Microsoft Corp.

Appendix

This appendix provides examples of files used or generated by the 3M Molecular Detection Software.

Example Reports

The following shows examples of 3M Molecular Detection Software reports. Some examples are shortened to remove repetitive information. All pertinent data has been shown.

Search Results

3M Molecular Detection System

Search Results

Report By   Admin

Sample ID	Sample Type	Product	Brand	Customer	Assay Type	Kit Lot Number	Well Type	Result	Run ID	Well ID	Instrument	Full Name	Date Created
Sample1					Salmonella	kits	Sample	Negative	Run2	B1	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	G1	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	C2	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Positive	Run2	H1	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	F2	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	A2	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	F1	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	B2	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Positive	Run2	E1	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Positive	Run2	A1	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	E2	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	D2	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	C1	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	D1	0211170032	Admin	8/3/2011 3:14:36 PM
Sample1					Salmonella	kits	Sample	Negative	Run2	H3	0211170032	Admin	8/3/2011 3:14:36 PM

Print Date: 8/11/2011 5:07:20 PM   1 of 13

Samples Report

3M Molecular Detection System

Samples Report

Report By   Admin

Sample ID	Sample Type	Product	Brand	Customer	Hidden	Full Name	Date Created
Test					No	Admin	8/2/2011 8:51:47 AM
1					No	Admin	8/2/2011 12:16:03 PM
2					No	Admin	8/2/2011 12:16:03 PM
3					No	Admin	8/2/2011 12:16:05 PM
4					No	Admin	8/2/2011 12:16:06 PM
5					No	Admin	8/2/2011 12:16:06 PM
6					No	Admin	8/2/2011 12:16:06 PM
7					No	Admin	8/2/2011 12:16:07 PM
8					No	Admin	8/2/2011 12:16:07 PM
Sample1					No	Admin	8/3/2011 3:18:46 PM
Sample2					No	Admin	8/3/2011 3:19:42 PM

Print Date: 8/11/2011 5:10:23 PM   1 of 1

Assay Kits Report

3M Molecular Detection System

Assay Kits Report

Report By Admin

Assay Type	Lot Number	Expiration Date	Hidden	Full Name	Date Created
Salmonella	SalLot01		No	Admin	8/2/2011 8:51:45 AM
E. coli O157	EcoLot01		No	Admin	8/2/2011 8:52:04 AM
Listeria	LisLot01		No	Admin	8/2/2011 8:52:15 AM
L. monocytogenes	LmLot01		No	Admin	8/2/2011 8:52:25 AM
Matrix Control	MCLot01		No	Admin	8/2/2011 8:53:35 AM
Salmonella	kits		No	Admin	8/3/2011 3:19:03 PM
E. coli O157	kit		No	Admin	8/3/2011 3:19:30 PM
Listeria	lis kit		No	Admin	8/3/2011 3:19:39 PM
Matrix Control	ic kit		No	Admin	8/3/2011 3:19:51 PM
E. coli O157	kit rc		No	Admin	8/3/2011 3:20:26 PM
E. coli O157	kit nc		No	Admin	8/3/2011 3:20:35 PM
Listeria	kit 4		No	Admin	8/3/2011 3:20:56 PM
Listeria	nc kit		No	Admin	8/3/2011 3:21:15 PM
Listeria	rc		No	Admin	8/3/2011 3:21:42 PM
Matrix Control	1		No	Admin	8/3/2011 3:21:47 PM
L. monocytogenes	lmono		No	Admin	8/3/2011 3:22:17 PM
Listeria	lot list		No	Admin	8/3/2011 3:22:42 PM
Salmonella	sal		No	Admin	8/3/2011 3:22:49 PM
Listeria	3		No	Admin	8/3/2011 3:23:10 PM
Salmonella	4		No	Admin	8/3/2011 3:23:31 PM

Print Date: 8/11/2011 5:11:30 PM

1 of 2

Completed Runs Report

3M Molecular Detection System

Completed Runs Report

Report By   Admin

Run ID	Run Creator	User	Instrument	Test Date
Run2	Admin	Admin	0211170032	8/3/2011 4:46:00 PM
Run1	Admin	Admin	0211170031	8/3/2011 4:44:19 PM
Run3	Admin	Admin	0211170027	8/3/2011 4:47:51 PM
Run4	Admin	Admin	0211170005	8/3/2011 4:49:01 PM

Print Date: 8/11/2011 5:12:45 PM   1 of 1

Users Report

3M Molecular Detection System

Users Report

Report By   Admin

Full Name	User Name	Role	Hidden	Date Created
Admin	admin	Administrator	No	8/2/2011 3:28:31 AM
User	user	User	No	8/11/2011 5:13:30 PM

Print Date: 8/11/2011 5:13:45 PM   1 of 1

Instrument Self-Check Report

<div align="center">

3M Molecular Detection System

Instrument Self-Check Results

Report By   Admin

</div>

Instrument	Date/Time	Test	Result
0211090013	8/11/2011 5:16:22 PM	SRAM	Pass
0211090013	8/11/2011 5:16:22 PM	Firmware	Pass
0211090013	8/11/2011 5:16:22 PM	Serial Number	Pass
0211090013	8/11/2011 5:16:22 PM	Cal data	Pass
0211090013	8/11/2011 5:16:22 PM	Power	Pass
0211090013	8/11/2011 5:16:22 PM	Ambient temp	Pass
0211090013	8/11/2011 5:16:22 PM	LEDs	Pass
0211090013	8/11/2011 5:16:22 PM	Core heaters	Pass
0211090013	8/11/2011 5:16:22 PM	Lid Heater	Pass
0211090013	8/11/2011 5:16:22 PM	Photodiodes	Pass

Print Date: 8/11/2011 5:16:26 PM   1 of 1

Instrument Temperature Log

EN (English)

3M Molecular Detection System

Instrument Temperature Log

Run ID	Run4	Instrument	0211170005:MDS 3
Report By	Admin		

Date/Time	Core Temp. (°C)	Lid Temp. (°C)
8/3/2011 3:34:16 PM	58.7	65.1
8/3/2011 3:34:31 PM	58.8	65.3
8/3/2011 3:34:46 PM	59.1	65.2
8/3/2011 3:35:01 PM	59.5	65.3
8/3/2011 3:35:16 PM	59.6	65.3
8/3/2011 3:35:31 PM	59.7	65.3
8/3/2011 3:35:46 PM	59.9	65.3
8/3/2011 3:36:01 PM	60.2	65.3
8/3/2011 3:36:16 PM	60.2	65.3
8/3/2011 3:36:31 PM	60.4	65.3
8/3/2011 3:36:46 PM	60.4	65.3
8/3/2011 3:37:01 PM	60.3	65.3
8/3/2011 3:37:16 PM	60.1	65.3
8/3/2011 3:37:31 PM	60.1	65.3
8/3/2011 3:37:46 PM	60.0	65.3
8/3/2011 3:38:01 PM	60.1	65.3
8/3/2011 3:38:16 PM	60.1	65.3
8/3/2011 3:38:31 PM	60.2	65.4
8/3/2011 3:38:46 PM	60.2	65.3
8/3/2011 3:39:01 PM	60.2	65.4
8/3/2011 3:39:16 PM	60.2	65.4
8/3/2011 3:39:31 PM	60.2	65.3
8/3/2011 3:39:46 PM	60.2	65.3
8/3/2011 3:40:01 PM	60.1	65.3
8/3/2011 3:40:16 PM	60.1	65.4
8/3/2011 3:40:31 PM	60.1	65.3
8/3/2011 3:40:46 PM	60.2	65.3
8/3/2011 3:41:01 PM	60.2	65.4
8/3/2011 3:41:16 PM	60.2	65.3
8/3/2011 3:41:31 PM	60.2	65.4
8/3/2011 3:41:46 PM	60.2	65.4
8/3/2011 3:42:01 PM	60.2	65.4
8/3/2011 3:42:16 PM	60.2	65.3
8/3/2011 3:42:31 PM	60.1	65.3

Print Date: 8/11/2011 5:14:48 PM

1 of 9

91

Audit Log

3M Molecular Detection System

Audit Log

Report By   Admin

Date/Time	User	Event Type	Details
8/2/2011 8:29:44 AM	Admin	Login	Application login
8/2/2011 8:53:46 AM	Admin	CreateObject	Created run "08022011 (2)".
8/2/2011 8:54:04 AM	Admin	RunStart	Started run "08022011 (2)".
8/2/2011 8:54:04 AM	Admin	ChangeObject	Changed run "08022011 (2)".
8/2/2011 8:54:28 AM	Admin	CreateObject	Created run "08022011 (3)".
8/2/2011 8:54:46 AM	Admin	RunStart	Started run "08022011 (3)".
8/2/2011 8:54:46 AM	Admin	ChangeObject	Changed run "08022011 (3)".
8/2/2011 8:55:03 AM	Admin	RunAbort	Aborted run "08022011 (2)".
8/2/2011 8:56:03 AM	Admin	RunAbort	Aborted run "08022011 (3)".
8/2/2011 10:06:53 AM	Admin	CreateObject	Created run "08022011 (4)".
8/2/2011 10:07:04 AM	Admin	RunStart	Started run "08022011 (4)".
8/2/2011 10:07:04 AM	Admin	ChangeObject	Changed run "08022011 (4)".
8/2/2011 10:07:33 AM	Admin	CreateObject	Created run "08022011 (5)".
8/2/2011 10:07:43 AM	Admin	GenerateReport	Generated report "Run Layout".
8/2/2011 10:07:59 AM	Admin	ChangeObject	Changed run "08022011 (5)".
8/2/2011 10:08:01 AM	Admin	GenerateReport	Generated report "Run Layout".
8/2/2011 10:08:40 AM	Admin	RunStart	Started run "08022011 (5)".
8/2/2011 10:08:40 AM	Admin	ChangeObject	Changed run "08022011 (5)".
8/2/2011 11:22:10 AM	Admin	RunStop	Stopped run "08022011 (4)".
8/2/2011 11:23:45 AM	Admin	RunStop	Stopped run "08022011 (5)".
8/2/2011 12:04:44 PM	Admin	CreateObject	Created run "08022011 (6)".
8/2/2011 12:04:56 PM	Admin	RunStart	Started run "08022011 (6)".
8/2/2011 12:04:56 PM	Admin	ChangeObject	Changed run "08022011 (6)".

Print Date: 8/11/2011 5:20:16 PM   1 of 5

Run Layout

3M Molecular Detection System

Run Layout

Run ID	08112011(2)		Run Date	
Technician	Admin		Run Comment	

	1	2	3	4	5	6	7	8	9	10	11	12
A	SAL:RC	SAL 9	ECO:RC	ECO 9	LIS:RC	LIS 108	LM:RC	LM 208	MC 1	MC 9		
B	SAL:NC	SAL 10	ECO:NC	ECO 0	LIS:NC	LIS 109	LM:NC	LM 209	MC 2	MC 10		
C	SAL 3	SAL 11	ECO 3	ECO 11	LIS 102	LIS 110	LM 202	LM 210	MC 3	MC 11		
D	SAL 4	SAL 12	ECO 4	ECO 12	LIS 103	LIS 111	LM 203	LM 211	MC 4	MC 12		
E	SAL 5	SAL 13	ECO 5	ECO 13	LIS 104	LIS 112	LM 204	LM 212	MC 5	MC 13		
F	SAL 6	SAL 14	ECO 6	ECO 14	LIS 105	LIS 113	LM 205	LM 213	MC 6	MC 14		
G	SAL 7	SAL 15	ECO 7	ECO 15	LIS 106	LIS 114	LM 206	LM 214	MC 7	MC 15		
H	SAL 8	SAL 16	ECO 8	ECO 16	LIS 107	LIS 115	LM 207	LM 215	MC 8	MC 16		

Well ID	Sample ID	Assay Type	Well Type	Kit Lot Number
A1		Salmonella	Reagent Control	SalLot01
B1		Salmonella	Negative Control	SalLot01
C1	3	Salmonella	Sample	SalLot01
D1	4	Salmonella	Sample	SalLot01
E1	5	Salmonella	Sample	SalLot01
F1	6	Salmonella	Sample	SalLot01
G1	7	Salmonella	Sample	SalLot01

Print Date: 8/11/2011 5:28:11 PM

1 of 6

Run Report (with graphs enabled)

3M Molecular Detection System

Run Report

Run ID	Run1	Run Date	8/3/2011 3:29:19 PM
Run Status	Completed (requires examination)	User	Admin
Technician	Admin	Report By	Admin
Run Comment		Instrument	0211170031:MDS 2
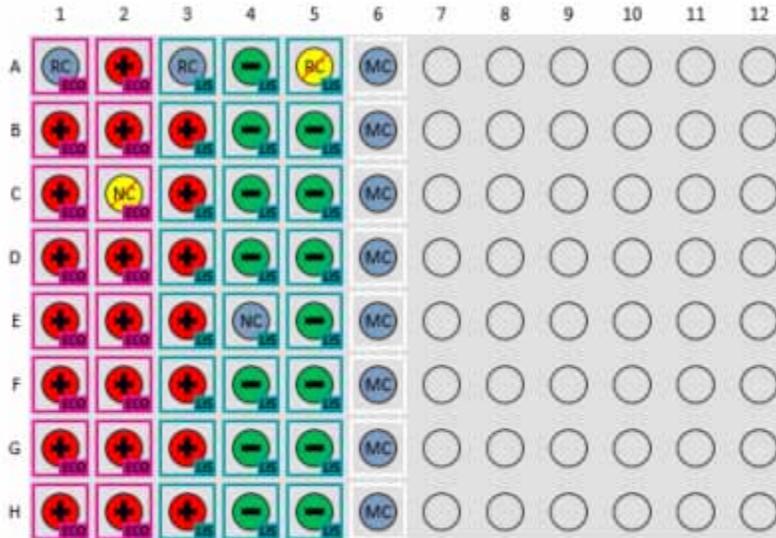
Well ID	Sample ID	Assay Type	Well Type	Kit Lot Number	Result	Comment
A1		E. coli O157	Reagent Control	kit rc	Valid	test
B1	Sample1	E. coli O157	Sample	kit	Positive	
C1	Sample1	E. coli O157	Sample	kit	Positive	
D1	Sample1	E. coli O157	Sample	kit	Positive	
E1	Sample1	E. coli O157	Sample	kit	Positive	
F1	Sample1	E. coli O157	Sample	kit	Positive	
G1	Sample1	E. coli O157	Sample	kit	Positive	
H1	Sample1	E. coli O157	Sample	kit	Positive	
A2	Sample1	E. coli O157	Sample	kit	Positive	
B2	Sample1	E. coli O157	Sample	kit	Positive	
C2		E. coli O157	Negative Control	kit nc	Invalid	
D2	Sample1	E. coli O157	Sample	kit	Positive	
E2	Sample1	E. coli O157	Sample	kit	Positive	
F2	Sample1	E. coli O157	Sample	kit	Positive	
G2	Sample1	E. coli O157	Sample	kit	Positive	

Print Date: 8/11/2011 5:30:06 PM

1 of 9

3M Molecular Detection System

Run Report

Run ID	Run 1	Run Date	8/3/2011 3:29:19 PM
Run Status	Completed (requires examination)	User	Admin
Technician	Admin	Report By	Admin
Run Comment		Instrument	0211170031:MDS 2

All Results

(A1)

Sample1 (B1)

Sample1 (C1)

Sample1 (D1)

Print Date: 8/11/2011 5:30:08 PM
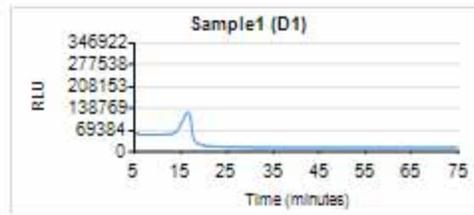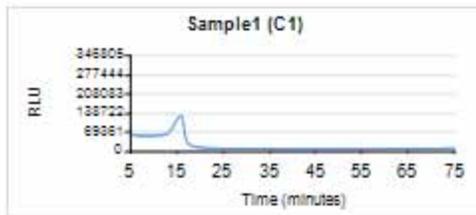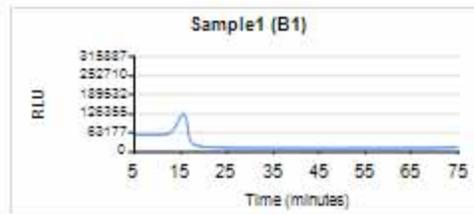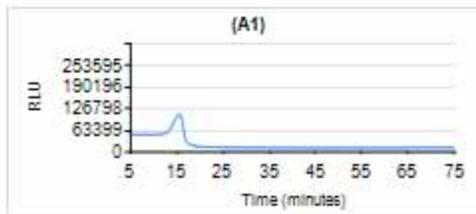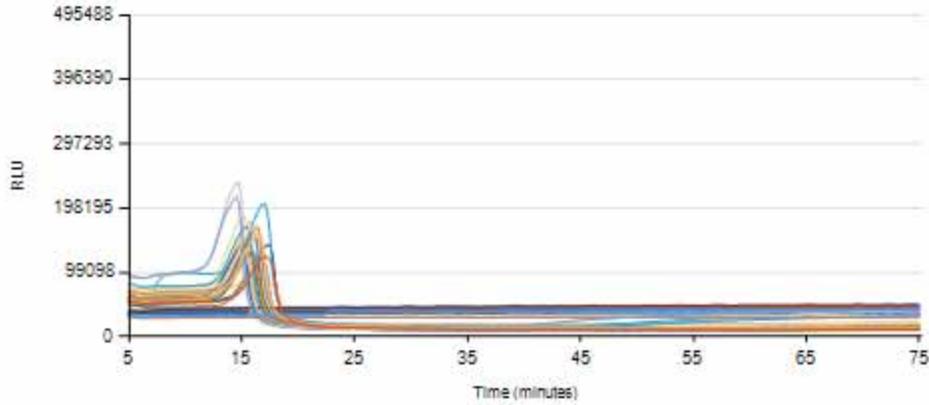
Example Import/Export Files

Sample Comma Separated Values (.CSV) File

The following is content of a Comma Seperated Values (.CSV) file that can be used to import Sample definitions. Each line is a new Sample definition. The data in each line is ordered. Two consecutive delimiters with nothing between them indicate a blank field. The following list associates the position of Sample descriptor fields with their values as specified in the first definition.

1. Sample ID   → Sample01,
2. Sample Type   → Processed(allowable values are described in the Configuring Fields section of this manual,
3. Description   → Beef,
4. Product   → Franks,
5. Brand   → Brand X,
6. Lot Number   → 20110408-A,
7. Line   → 5,
8. Customer   → Customer X.

  Sample01,Processed,Beef,Franks,Brand X,20110408-A,5,Customer X

  Sample02,Environmental,Grinder A,,,,6,Customer Y

  Sample03,,,,,,,

Run Setup Comma Separated Values (.CSV) File

The following is content of a Comma Separated Values (.CSV) file that can be used to import Sample, Run and Kit Lot definitions. The data is ordered. Two consecutive delimiters with nothing between them indicate a blank field. The following list associates the position of Run, Sample and Kit Lot descriptor fields with their values as specified in the first definition.

1. Run ID   → 04062001(2),
2. Well ID   → A1,
3. Assay Type   → SAL (allowable values are described in the Importing a New Run section of this manual),
4. Well Type   → Sample (allowable values are described in the Importing a New Run section of this manual),
5. Well Comment   → <blank>,
6. Retest   → FALSE,
7. Retest Run ID   → <blank>,
8. Retest Well ID   → <blank>,
9. Kit Lot Number   → KitLot_SAL,
10. Expiration Date (Kit Lot) → 2012-12-31,
11. Sample ID   → Sample01,
12. Sample Type   → Processed(allowable values are described in the Configuring Fields section of this manual,
13. Description   → Beef,
14. Product   → Franks,
15. Brand   → Brand X,
16. Lot Number   → 20110408-A,
17. Line   → 5,
18. Customer   → Customer X.

  04062011(2),A1,SAL,Sample,,False,,,KitLot_SAL,2012-12-31,Sample01,Processed,Beef ,Franks,Brand X, 20110408-A,5,Customer X

  04062011(2),A2,MC,,,False,,,KitLot_MC,2012-12-31,Sample01,Processed,Beef ,Franks,Brand X,20110408-A,5,Customer X

  04062011(2),B1,SAL,RC,,False,,,KitLot_SAL,2012-12-31,,,,,,,,

  04062011(2),C1,SAL,NC,,False,,,KitLot_SAL,2012-12-31,,,,,,,,

Run Results Comma Separated Values (.CSV) File

The following is an example of Run results exported to a Comma Separated Values (.CSV) file. The following list associates the position of descriptor fields with their values as specified in the first definition. Two consecutive delimiters with nothing between them indicate a blank field

1. Run ID $\rightarrow$ 04062001(2),
2. Well ID $\rightarrow$ A1,
3. Assay Type $\rightarrow$ SAL (allowable values are described in the Importing a New Run section of this manual),
4. Well Type $\rightarrow$ Sample (allowable values are described in the Importing a New Run section of this manual),
5. Well Comment $\rightarrow$ <blank>,
6. Retest $\rightarrow$ FALSE,
7. Retest Run ID $\rightarrow$ <blank>,
8. Retest Well ID $\rightarrow$ <blank>,
9. Kit Lot Number $\rightarrow$ KitLot_SAL,
10. Expiration Date (Kit Lot) $\rightarrow$ 2012-12-31,
11. Sample ID $\rightarrow$ Sample01,
12. Sample Type $\rightarrow$ Processed(allowable values are described in the Configuring Fields section of this manual,
13. Description $\rightarrow$ Beef,
14. Product $\rightarrow$ Franks,
15. Brand $\rightarrow$ Brand X,
16. Lot Number $\rightarrow$ 20110408-A,
17. Line $\rightarrow$ 5,
18. Customer $\rightarrow$ Customer X.
19. Result $\rightarrow$ Positive

04062011(2),A1,SAL,Sample,,False,,,KitLot_SAL,2012-12-31,Sample01,Processed,Beef ,Franks,Brand X, 20110408-A,5,Customer X,Positive

04062011(2),A2,MC,,,False,,,KitLot_MC,2012-12-31,Sample01,Processed,Beef ,Franks,Brand X, 20110408-A,5,Customer X,Valid

04062011(2),B1,SAL,RC,,False,,,KitLot_SAL,2012-12-31,,,,,,,,,Valid

04062011(2),C1,SAL,NC,,False,,,KitLot_SAL,2012-12-31,,,,,,,,,Valid

License agreement

The following terms and conditions apply to your purchase of the 3M Molecular Detection System and your licensing of the software:

3M END USER LICENSE AGREEMENT
3M™ MOLECULAR DETECTION SYSTEM SOFTWARE
THIS END USER LICENSE AGREEMENT ("AGREEMENT") IS A LEGAL AGREEMENT BETWEEN YOU ("YOU" or "USER") AND 3M COMPANY ("3M") REGARDING YOUR ACCESS TO AND USE OF THE SOFTWARE IDENTIFIED HEREIN. BY CLICKING THE "I ACCEPT" BUTTON DISPLAYED HEREWITH AND/OR BY DOWNLOADING, INSTALLING, COPYING OR OTHERWISE USING THE SOFTWARE, YOU AGREE TO BE LEGALLY BOUND BY THIS AGREEMENT. IF YOU ARE ACCEPTING THIS AGREEMENT ON BEHALF OF A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND WARRANT THAT YOU HAVE THE AUTHORITY TO LEGALLY BIND SUCH ENTITY TO THIS AGREEMENT, IN WHICH CASE THE TERMS "YOU," "YOUR" AND "USER" HEREIN REFER TO SUCH ENTITY. IF YOU DO NOT HAVE SUCH AUTHORITY, OR IF YOU DO NOT AGREE TO BE BOUND BY THIS AGREEMENT, YOU MUST CLICK THE "I DO NOT ACCEPT" BUTTON, YOU MAY NOT DOWNLOAD, INSTALL, COPY OR OTHERWISE USE THE SOFTWARE, AND YOU MAY CONTACT YOUR 3M SALES AGENT TO RETURN YOUR 3M MOLECULAR DETECTION SYSTEM AND OBTAIN A REFUND.

1. LICENSE

In consideration for User's payment to 3M of the purchase price, 3M grants User the nonexclusive nontransferable right: (a) to use internally, in its own business, the 3M Molecular Detection Software program object code included in the 3M Molecular Detection System, solely in conjunction with its use of the 3M Molecular Detection System (which software, including all User Documentation and all future versions, updates, and enhancements thereof provided to User by 3M, is referred to as the "Software"); (b) to make one back-up copy of the Software, but only as necessary for User's use of the Software as permitted by this Agreement; and (c) to make copies of the User Documentation for User's internal use only. User agrees not to make any other copies of the Software or User Documentation. Nothing in this Agreement gives User any right to receive or use any source code for the Software. For the purposes of this Agreement, the 3M Molecular Detection System includes the 3M Molecular Detection Instrument, Software and other components supplied by 3M which are described in the 3M Molecular Detection System User Manual ("User Documentation").

2. OWNERSHIP

The parties acknowledge that the Software is the sole and exclusive property of 3M and/or its licensors. User agrees to reproduce, on any copy of the Software or the User Documentation User makes, all copyright and proprietary rights notices as well as similar notices appearing on the Software or User Documentation.

3. RESTRICTIONS ON USE

User agrees not to lease, sublicense, sell, decompile, disassemble, modify, reverse engineer, or transfer the Software, or translate the Software to another language. User agrees not to disclose to anyone outside User any part of the Software other than the screen displays visible to a user of the Software and not to provide access to the Software to anyone outside User's company through a network or other means.

4. LIMITED WARRANTY

3M Food Safety Hardware ("Hardware") includes the 3M Molecular Detection System Instrument, and any associated Software and other components supplied by 3M which are described in the applicable Installation and Use Guides ("User Documentation").

LIMITED WARRANTY AND DISCLAIMER

3M warrants that for one year from the date of shipment that the Hardware will substantially perform in accordance with the User Documentation. THIS WARRANTY IS VOID IF: (A) THE HARDWARE HAS BEEN REPAIRED BY PERSONS NOT AUTHORIZED BY 3M; OR (B) THE HARDWARE HAS BEEN ALTERED, MODIFIED, OR MISUSED; OR (C) THE HARDWARE IS USED WITH PRODUCTS, SUPPLIES, COMPONENTS OR SOFTWARE NOT SUPPLIED BY 3M FOR USE WITH THE HARDWARE; OR (D) THE HARDWARE OR A COMPONENT IS USED FOR OTHER USES (FOR EXAMPLE USE WITH OTHER CIRCUIT BOARDS OR SOFTWARE) OR (E) THE HARDWARE HAS NOT BEEN MAINTAINED OR USED IN ACCORDANCE WITH THE USER DOCUMENTATION. UNLESS PROHIBITED BY LAW, THIS WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, THE IMPLIED WARRANTY OF MERCHANTABILITY, OR

ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING OR OF PERFORMANCE, CUSTOM OR USAGE OF TRADE. 3M DOES NOT WARRANT THAT THE SOFTWARE WILL FUNCTION ERROR FREE.

If within one year after shipment, the Hardware does not conform to the express warranty set forth above, 3M's sole obligation and User's sole remedy shall be, at 3M's option: 1) to repair or replace the non-conforming component; or, 2) refund the purchase price.

5. CONFIDENTIALITY

The parties agree that the Software and information relating to its functions and capabilities are confidential and proprietary information owned exclusively by 3M (the "Confidential Information"). User agrees to maintain the Confidential Information in secret, and not to use or disclose it except as specifically authorized by this Agreement. User agrees that it will limit the disclosure of the Confidential Information only to its officers, employees and agents directly involved in use of the Software as permitted by this Agreement, and who agree to maintain the confidentiality of the Confidential Information. User will not be obligated to retain any Confidential Information in confidence if such information is or becomes generally available to the public through no fault of User, or if User had any such information in its possession prior to receiving it from 3M or developing it under this Agreement. User's obligations under this section 5 shall continue for 5 years after expiration or termination of this Agreement.

6. LIMITATION OF LIABILITY

UNLESS PROHIBITED BY LAW, 3M WILL NOT BE LIABLE TO USER OR OTHERS FOR ANY OTHER DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES INCLUDING, FOR EXAMPLE, LOST PROFITS, BUSINESS, INVESTMENTS, OR OPPORTUNITIES EVEN IF 3M HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. The parties agree that 3M's total cumulative liability to User for direct damages for all causes shall not exceed One Hundred Dollars, or the price paid for the Hardware, whichever is higher. Some states or countries may have laws which require liability rights different from those stated above. In such state or countries, the minimum required liability terms shall apply.

To request service, you must request a Returned Material Authorization (RMA) number from the service center. Please call 1-800-328-1671.

8. TERMINATION

This Agreement shall terminate (a) in the event the User materially breaches a provision of this

Agreement and fails to cure such breach within 30 days after receiving a written notice of breach from 3M; or (b) in the event User discontinues use of the Software. Upon termination of this Agreement for any reason, User shall return to 3M all copies of the Software in User's possession or control.

9. INFRINGEMENT

3M shall defend, at its expense, any claim or suit brought against User alleging that the Software infringes a United States patent or copyright, and shall pay all costs and damages finally awarded, provided that 3M is given prompt written notice of such claim and is given information, reasonable assistance, and sole authority to defend or settle the claim. In the defense or settlement of the claim, 3M may obtain for User the right to continue using the Software, replace or modify the Software so that it becomes non-infringing or, if such remedies are not reasonably available in the opinion of 3M, grant User a credit for the Software as depreciated and accept its return. 3M shall not have any liability if the alleged infringement is based upon the use or sale of the Software in combination with other software or devices not manufactured by 3M, or is based upon alterations to the Software or usage of the Software in a manner not authorized in writing by 3M. This is 3M's sole liability to User relating to third party claims of patent or copyright infringement.

10. INDEMNIFICATION

User agrees to indemnify and hold harmless 3M, its officers, directors, employees, agents, subsidiaries and affiliates, and their successors and assigns ("Indemnities"), from and against any claim, liability, loss, damage, lien, judgment, duty, fine, civil penalty and cost, including reasonable attorneys fees and litigation expenses, arising from (a) User's breach of this Agreement; (b) User's use of the 3M Molecular Detection System and the Software; (d) User's failure to install, use and maintain the 3M Molecular Detection System and the Software in accordance with the User Documentation, and (c) User's failure to comply with applicable laws and regulations, including but not limed to rules and regulations promulgated by the U.S. Food and Drug Administration.

10. ASSIGNMENT

User may not assign this Agreement or any interest therein without the prior, written consent of 3M, and any attempted assignment shall be void.

11. COMPLETE AGREEMENT

User agrees that this Agreement is the complete agreement between 3M and User relating to its subject. This Agreement supersedes any prior oral or written agreements and other communications between 3M and User relating to this subject. In the event any provision of this Agreement is deemed by a court with jurisdiction to be invalid or unenforceable, such provision shall be considered stricken from this Agreement and the remainder shall continue in full force and effect.

12. GOVERNMENT USE

This Article applies to all acquisitions of this software by or for the United States Federal Government, or by any prime contractor or subcontractor (at any tier) for the United States Federal Government, under any contract, grant, cooperative agreement, other transaction, or other agreement with the United States Federal Government. By accepting delivery of this Software, the United States Federal Government hereby agrees that this software qualifies as "commercial" computer software within the meaning of the acquisition or financial assistance regulations applicable to this procurement. The terms and conditions of this license shall apply to the Government's use and disclosure of this Software, and shall supersede any conflicting contract terms and conditions. If this license fails to meet the Government's needs or is inconsistent with Federal law, the United States Federal Government agrees to return this Software, unused, to 3M. Applicable FAR and DFARS Clauses. FAR 52.212-4, "Contract Terms and Conditions – Commercial Items," and FAR 52.212-5, "Contract Terms and Conditions Required to Implement Statutes or Executive Orders – Commercial Items," as in effect on the effective date of this Agreement, are hereby incorporated by reference and made a part of this Agreement. If this Agreement is with the Department of Defense, DFARS 252.212-7001, "Contract Terms and Conditions Required to Implement Statutes or Executive Orders Applicable to Defense Acquisitions of Commercial Items," as in effect on the Effective Date, is also hereby incorporated by reference and made a part of this Agreement.

13. GOVERNING LAW

This Agreement shall be construed in accordance with the laws of the State of Minnesota applicable to contracts made and performed therein. All legal actions arising from or relating to this Agreement shall be brought solely in the state and federal courts of competent jurisdiction located in Ramsey County, Minnesota, and User irrevocably submits to the personal jurisdiction of such courts. This Agreement shall not be governed by the 1980 United Nations Convention on Contracts for the International Sale of Goods.

You must accept the terms of the Agreement in order to use the 3M Molecular Detection System. If you are unwilling to accept the terms, please contact your 3M sales agent to return the system and obtain a refund.

3M Food Safety

3M United States
3M Center
Bldg. 275-5W-05
St. Paul, MN 55144-1000
USA
1-800-328-6553

3M Canada
Post Office Box 5757
London, Ontario N6A 4T1
Canada
1-800-563-2921

3M Europe and MEA
3M Deutschland GmbH
Carl-Schurz - Strasse 1
D41453 Neuss/Germany
+49-2131-14-3000

3M Latin America
3M Center
Bldg. 275-5W-05
St. Paul, MN 55144-1000
USA
1-954-340-8263

3M Asia Pacific
No 1, Yishun Avenue 7
Singapore, 768923
65-64508869

3M Japan
3M Health Care Limited
33-1, Tamagawadai 2-chrome
Setagaya-ku, Tokyo
158-8583, Japan
81-570-011-321

3M Australia
Bldg A, 1 Rivett Road
North Ryde, NSW 2113
Australia
61 1300 363 878

3M

3M Health Care

2510 Conway Ave
St. Paul, MN 55144 USA
www.3M.com/foodsafety